

**At Bruxelles Woluwe - 120 credits - 2 years - Day schedule - In French**Dissertation/Graduation Project : **YES** - 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: **FARM2M** - Francophone Certification Framework: 7**Table of contents**

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## FARM2M - Introduction

### Introduction

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## FARM2M - Teaching profile

### Learning outcomes

As actors in the field of health sciences, pharmacists are experts on the subject of medication.

From design to production, from pharmaceutical research to marketing the product, from collating information to distributing it, pharmacy graduates are preparing for employment as pharmacists in a number of professional environments, at each stage of the medication process.

This Master's programme is designed to produce health professionals in such diverse environments as the pharmacy (dispensary) open to the public, the academic world, hospitals or industry. This diversity is based on a solid scientific framework which ultimately seeks to improve patient health.

The training offered by the School of Pharmacy relies on the combined expertise of instructors who are researchers and instructors who are practitioners. It provides students with a number of opportunities to develop their know-how and their ability to master the various roles of the modern pharmacist: laboratories, work placements, research projects and classes are all included in the two years of the Master's programme.

On successful completion of this programme, each student is able to :

1. Pharmaceutical expertise: display command of and assimilate the knowledge required to formulate a pertinent response to any pharmaceutical question

1a. Display command of and apply the fundamental principles and essential concepts of the basic sciences in the practice of pharmacy.

1b. Assimilate a specialised knowledge base in chemistry, pharmacognosy, pharmacology, toxicology and galenic pharmacy useful in the synthesis, design, formulation, evaluation, dispensing and control of medicinal drugs.

1c. Assimilate and use a detailed knowledge base in nutrition, pathology, pharmacotherapy, therapeutics and semiology in order to understand patients in all their complexity.

2. In the preparation and dispensing of medications: act in an appropriate and responsible manner in line with procedures

2a. Dispense medications in a responsible manner in order to achieve general health objectives such as the prevention, identification and treatment of problems related to the use of medications, in collaboration with other health professionals and the patient.

2b. Select an appropriate response and apply a solution in their professional practice, in particular to

- formulate, produce and control a medication

- develop a pharmaceutical care plan \*

2c. Comply with the legal, ethical and deontological requirements so as to act in a responsible and professional manner for the patient and society.

2d. Be the first responder in an emergency situation.

3. Health advice: offer appropriate advice when dispensing medicine and monitor progress

3a. Evaluate the situation taking into consideration elements related to the patient, scientific and medical aspects and socio-economic factors.

3b. Monitor the selected response and apply any necessary modifications.

3c. Collect and communicate information relating to the safety of use of the medication (pharmacovigilance).

3d. Operate as part of a multidisciplinary team.

4. Communication: communicate in a professional manner and tailor the message to suit different audiences

4a. Converse effectively and respectfully, demonstrating active listening and empathy in their relationships with patients.

4b. Tailor their communication to the target audience in order to obtain and provide clear information.

4c. Use information and communication technologies appropriately with regard to their professional practice.

4d. Respect confidentiality in their professional practice.

5. Scientific approach: resolve health-related problems by incorporating and analysing, in a critical manner, different scientific approaches

5a. Understand a complex pharmaceutical problem or issue.

5b. Summarise the key and necessary elements related to the problem or issue concerned.

5c. Display command of the relevant and pertinent tools and sources of information related to the problem or issue concerned.

5d. Analyse, understand and compare specialised information in a critical and expert manner.

- 5e. Select an appropriate response and apply a solution in their professional practice, in particular to design and validate an experimental protocol.
6. Sense of responsibility: act in an ethical and responsible manner
- 6a. Incorporate a knowledge base of ethics, legislation, deontology and pharmaco-economics.
- 6b. Conduct themselves as key and responsible actors, with public health issues a priority concern.
- 6c. Identify the competent professional to whom a request outside the scope of their activities should be transferred.
7. Quality: evaluate, self-assess and update their knowledge and improve their practice
- 7a. Develop a self-assessment approach to define their training needs in order to respond to complex situations.
- 7b. Identify and utilise individual and collective lifelong learning tools in an independent, critical and robust manner.
- 7c. Update and expand their knowledge base and skills independently to ensure that their knowledge and practices are constantly improved.
- 7d. Evaluate the work of colleagues to contribute to the improvement of knowledge and practices.

## Programme structure

The programme (120 credits) comprises core subjects (74 credits), a focus (30 credits) and an option course (16 credits).

Apart from the core subjects which are compulsory for everyone, students may choose :

- a focus : either the professional focus which provides training for professional pharmacists, or the research focus which is theoretical and practical training for research in pharmacy. The two focuses enable students to gain the professional status of pharmacist.
- one option course from the following five :

dispensing and pharmaceutical monitoring

innovation and design of drugs

production, checking and regulation

biopharmacy and pharmacotoxicology

research in pharmacy. This option course is only open to students doing the research focus.

The contents of the different parts of the programme are outlined below.

*For a programme-type, and regardless of the focus, options/or elective courses selected, this master will carry a minimum of 120 credits divided over two annual units, corresponding to 60 credits each.*

[> Core courses](#) [ en-prog-2020-farm2m-tronc\_commun ]

[Focuses](#)

[> Research Focus](#) [ en-prog-2020-farm2m-wfarm200a ]

[> Professional Focus](#) [ en-prog-2020-farm2m-wfarm201s ]

[> List of electives](#) [ en-prog-2020-farm2m-options ]

[> Option délivrance et suivi pharmaceutique](#) [ en-prog-2020-farm2m-wfarm202o ]

[> Option innovation et conception du médicament](#) [ en-prog-2020-farm2m-wfarm203o ]

[> Option production, contrôle et réglementation](#) [ en-prog-2020-farm2m-wfarm204o ]

[> Option biopharmacie et pharmacotoxicologie](#) [ en-prog-2020-farm2m-wfarm205o ]

[> Option recherches en sciences pharmaceutiques](#) [ en-prog-2020-farm2m-wfarm206o ]

[Preparatory Module](#) (only for students who qualify for the course via complementary coursework)

[> Master \[120\] in Pharmacy](#) [ en-prog-2020-farm2m-module\_complementaire ]

## FARM2M Detailed programme

## Programme by subject

### CORE COURSES [74.0]

- Mandatory  
 △ Courses not taught during 2020-2021  
 ⊕ Periodic courses taught during 2020-2021  
 ✘ Optional  
 ⊖ Periodic courses not taught during 2020-2021  
 ■ Activity with requisites

Click on the course title to see detailed informations (objectives, methods, evaluation...)

						Year	
						1	2
○ WFARM2117	Analyse et contrôle de qualité des médicaments	Joëlle Leclercq (coord.) Giulio Muccioli	30h	3 Credits	q1	x	
○ WFARM2118	Chimie médicinale	Raphaël Frédéric Didier Lambert Giulio Muccioli (coord.)	30h	3 Credits	q2	x	
○ WFARM2139	Pharmacocinetic, genomics and toxicology	Laure Bindels (coord.) Laure Elens Vincent Haufroid	37.5h	4 Credits	q1	x	
○ WFARM2149	Pharmaceutical approach in nutrition	Nathalie Delzenne	30h+15h	3 Credits	q2	x	
○ WFARM2156	Pharmacie galénique 1re partie	Véronique Prétat	40h	5 Credits	q1	x	
○ WFARM2157	Pharmacie galénique 2e partie	Véronique Prétat (coord.) Rita Vanbever	20h+28h	5 Credits	q2	x	
○ WFARM2114	Pharmacologie spéciale et éléments de pharmacothérapie 1re partie	Olivier Feron Emmanuel Hermans Jean-Christophe Jonas Françoise Van Bambeke (coord.)	30h	3 Credits	q1	x	
○ WFARM2116	Pharmacologie spéciale et éléments de pharmacothérapie 2e partie	Chantal Dessy Olivier Feron Françoise Van Bambeke (coord.)	26h	3 Credits	q2	x	
○ WFARM2111	Séminaire de pharmacothérapie intégrée (1re partie)	Chantal Dessy Nathalie Dujardin Olivier Feron Emmanuel Hermans Muriel Rocour Anne Spinewine Françoise Van Bambeke (coord.)	30h+15h	5 Credits	q1+q2	x	
○ WFARM2236	Pharmacie et société	Catherine Druez Christian Léonard Marie-Paule Mingeot (coord.) Luc Roegiers Thierry Roisin	37.5h	4 Credits	q1		x
○ WFARM2239	Sémiologie ■	Benoit Boland (coord.) Stéphan Clement de Clety Pascale Cornette	30h	4 Credits	q1		x
○ WFARM2256	Soins pharmaceutiques en officine et stage ■	Valérie Lacour Muriel Rocour Stéphanie Valentin	15h+40h	12 Credits	q1+q2		x
○ WFARM2209	Mémoire en sciences pharmaceutiques			18 Credits			x

### ○ Sciences religieuses

L'étudiant choisit un cours parmi les 3 suivants :

✘ LTECO2101	Questions of religious sciences: biblical readings	Claude Lichtert	15h	2 Credits	q1	x	
✘ LTECO2102	Questions of religious sciences: reflections about christian faith	Dominique Jacquemin (compensates Arnaud Join-Lambert)	15h	2 Credits	q1	x	
✘ LTECO2103	Questions of religious sciences: questions about ethics	Dominique Jacquemin (compensates Eric Gaziaux)	15h	2 Credits	q1	x	



**LIST OF FOCUSES**

- > [Research Focus](#) [ en-prog-2020-farm2m-wfarm200a ]  
 > [Professional Focus](#) [ en-prog-2020-farm2m-wfarm201s ]

**RESEARCH FOCUS [30.0]**

- Mandatory  
 Courses not taught during 2020-2021  
 Periodic courses taught during 2020-2021  
 Optional  
 Periodic courses not taught during 2020-2021  
 Activity with requisites

Click on the course title to see detailed informations (objectives, methods, evaluation...)

Year

1 2

**Content:**

<input checked="" type="radio"/> WFARM2171	Travail expérimental de recherche en sciences pharmaceutiques (1re partie)			6 Credits	q2	x	
<input checked="" type="radio"/> WFARM2176	Présentation d'un travail de recherche en sciences pharmaceutiques	Olivia Dalleur Anne Des Rieux Raphaël Frédéric Bernard Gallez (coord.) Joëlle Leclercq Marie-Paule Mingeot Giulio Muccioli Véronique Prétat Pierre Sonveaux Françoise Van Bambeke Rita Vanbever	50h	11 Credits	q2	x	
<input checked="" type="radio"/> WFARM2249	Séminaire d'intégration pharmaceutique (finalité approfondie)	Olivia Dalleur Nathalie Delzenne Anne Des Rieux Olivier Feron Bernard Gallez Emmanuel Hermans (coord.) Joëlle Leclercq Marie-Paule Mingeot Giulio Muccioli Rita Vanbever	40h	8 Credits	q2		x
<input checked="" type="radio"/> WFARM2276	Travail expérimental de recherche en sciences pharmaceutiques			5 Credits	q2		x

**PROFESSIONAL FOCUS [30.0]**

- Mandatory  
 Courses not taught during 2020-2021  
 Periodic courses taught during 2020-2021  
 Optional  
 Periodic courses not taught during 2020-2021  
 Activity with requisites

Click on the course title to see detailed informations (objectives, methods, evaluation...)

Year

1 2

**Content:**

<input checked="" type="radio"/> WFARM2135	Seminary and practical exercises integred of pharmaceutical sciences	Laure Elens Raphaël Frédéric Joëlle Leclercq Giulio Muccioli (coord.) Véronique Prétat	0h+160h	9 Credits	q1+q2	x	
<input checked="" type="radio"/> WFARM2196	Rational therapeutic choices (Introduction to evidence-based medicine and pharmacoecconomy)	Nathalie Dujardin Séverine Henrard Anne Spinewine (coord.)	30h+10h	4 Credits	q1	x	

						Year	
						1	2
○ WFARM2134	Gestion des situations aiguës	Pierre Bulpa (coord.) Maximilien Gourdin Geoffrey Horlait Henri Thonon	15h	2 Credits	q2	x	
○ WFARM2235	PRACTICAL TRAINING IN PHARMACEUTICAL TECHNOLOGY	Véronique Prétat	0h+120h	5 Credits	q1		x
○ WFARM2211	Séminaire de pharmacothérapie intégrée (2e partie)	Guy Beuken Olivia Dalleur Chantal Dessy Olivier Feron Emmanuel Hermans Françoise Van Bambeke (coord.)	0h+22.5h	2 Credits	q2		x
○ WFARM2259	Séminaire d'intégration pharmaceutique (finalité spécialisée)	Olivia Dalleur Nathalie Delzenne Anne Des Rieux Olivier Feron Bernard Gallez Emmanuel Hermans (coord.) Joëlle Leclercq Marie-Paule Mingeot Giulio Muccioli Rita Vanbever	40h	8 Credits	q2		x

## OPTIONS [16.0]

- > Option délivrance et suivi pharmaceutique [ en-prog-2020-farm2m-wfarm202o ]
- > Option innovation et conception du médicament [ en-prog-2020-farm2m-wfarm203o ]
- > Option production, contrôle et réglementation [ en-prog-2020-farm2m-wfarm204o ]
- > Option biopharmacie et pharmacotoxicologie [ en-prog-2020-farm2m-wfarm205o ]
- > Option recherches en sciences pharmaceutiques [ en-prog-2020-farm2m-wfarm206o ]

## OPTION DÉLIVRANCE ET SUIVI PHARMACEUTIQUE [16.0]

Typiquement orientée vers la formation à la pharmacie officinale, cette option permet d'approfondir les connaissances en tant que pharmacien-conseil du bon usage du médicament, que ce soit au domicile du patient ou en milieu hospitalier.

○ Mandatory

△ Courses not taught during 2020-2021

⊕ Periodic courses taught during 2020-2021

⊗ Optional

⊖ Periodic courses not taught during 2020-2021

Activity with requisites

Click on the course title to see detailed informations (objectives, methods, evaluation...)

Year

1 2

### ○ Content:

#### ○ Cours obligatoires (10 credits)

○ WFARM2123	Complément de pharmacothérapie	Chantal Dessy Francois Duhoux Francois Duhoux (compensates) Emmanuel Hermans Nathalie Dujardin Anne Spinewine (coord.) Aline Wertz Aline Wertz (compensates) Emmanuel Hermans	30h+15h	3 Credits	q2	x	
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						Year	
						1	2
○ WFARM2504	DERMOPHARMACY	Marie Baeck (coord.) Liliane Marot Isabelle Tromme	22.5h	3 Credits	q1	x	
○ WFARM2210	Contact en milieu professionnel (stage 1 mois)	Marie-Paule Mingeot (coord.)		4 Credits	q1		x

### ○ Cours au choix (6 credits)

L'étudiant choisit 2 cours dans la liste suivante. Avec l'accord du conseiller aux études, un autre cours pourrait être choisi mais la compatibilité horaire avec l'ensemble du programme pourrait ne pas être assurée.

⊗ WFARM2507	Introduction to pharmaceutical management	Yannick Biot	22.5h	3 Credits	q2	x	
⊗ WFARM2509	Complementary medicines	Christophe Chantrain Olivia Dalleur (coord.) Joëlle Leclercq Marie-Paule Mingeot	22.5h	3 Credits	q2	x	
⊗ WFARM2510	Veterinary drugs	Jean-Paul Dehoux Isabelle Donnay Françoise Van Bambeke (coord.)	22.5h	3 Credits	q2	x	
⊗ WFARM2512	NEW DRUG DELIVERY SYSTEMS	Anne Des Rieux Véronique Prétat (coord.) Rita Vanbever	22.5h	3 Credits	q2	x	
⊗ WFARM2514	Pharmacodépendance et toxicomanie	Laure Bindels Philippe de Timary Sophie Gohy Philippe Hantson Vincent Haufroid Emmanuel Hermans (coord.) Denis Jacques Didier Lambert Peter Starkel Miikka Vikkula	22.5h	3 Credits	q2	x	
⊗ WFARM2521	Recherche translationnelle : de la dysfonction biologique à la validation de nouveaux traitements	Emmanuel Hermans Marie-Paule Mingeot Véronique Prétat Pierre Sonveaux (coord.)	22.5h	3 Credits	q2	x	
⊗ WFARM2527	Biomatériaux et ingénierie tissulaire	Christiani Andrade Amorim Anne Des Rieux	22.5h	3 Credits	q2	x	
⊗ WFARM2529	Produits issus des biotechnologies et vaccins	Karin Hardt Mustapha Najimi (coord.)	22.5h	3 Credits	q2	x	

**OPTION INNOVATION ET CONCEPTION DU MÉDICAMENT [16.0]**

En envisageant les premiers stades de développement du médicament, depuis sa découverte jusqu'aux étapes de recherche préclinique, cette option met l'accent sur la conception des futurs nouveaux médicaments dans les laboratoires de recherche.

○ Mandatory

△ Courses not taught during 2020-2021

⊕ Periodic courses taught during 2020-2021

⊗ Optional

⊖ Periodic courses not taught during 2020-2021

■ Activity with requisites

Click on the course title to see detailed informations (objectives, methods, evaluation...)

Year

1 2

o **Content:**

o **Cours obligatoires (10 credits)**

○ WFARM2128	Processus de découverte, de développement et de mise sur le marché du médicament	Laure Bindels Raphaël Frédéric Séverine Henrard Philippe Jacqmin Joëlle Leclercq Françoise Van Bambeke (coord.)	30h+15h	3 Credits	q2	x	
○ WFARM2515	Pharmacologie moléculaire	Olivier Feron Emmanuel Hermans (coord.) Marie-Paule Mingeot Pierre Sonveaux	22.5h	3 Credits	q1		x
○ WFARM2210	Contact en milieu professionnel (stage 1 mois)	Marie-Paule Mingeot (coord.)		4 Credits	q1		x

o **Cours au choix (6 credits)**

L'étudiant choisit 2 cours dans la liste suivante. Avec l'accord du conseiller aux études, un autre cours pourrait être choisi mais la compatibilité horaire avec l'ensemble du programme pourrait ne pas être assurée.

⊗ WFARM2501	Chimie pharmaceutique avancée et drug design	Raphaël Frédéric Raphaël Frédéric (compensates) Didier Lambert Giulio Muccioli (coord.)	22.5h	3 Credits	q2	x	
⊗ WFARM2503	Complements of pharmacognosy and of phytotherapy	Joëlle Leclercq	22.5h	3 Credits	q2	x	
⊗ WFARM2508	Isolation and Structural Analysis of Natural Products	Joëlle Leclercq (coord.) Giulio Muccioli	22.5h	3 Credits	q2	x	
⊗ WFARM2511	Méthodologie des mesures radio-actives en recherche pharmaceutique et biomédicale	Bernard Gallez	22.5h	3 Credits	q2	x	
⊗ WFARM2521	Recherche translationnelle : de la dysfonction biologique à la validation de nouveaux traitements	Emmanuel Hermans Marie-Paule Mingeot Véronique Prétat Pierre Sonveaux (coord.)	22.5h	3 Credits	q2	x	
⊗ WFARM2520	Principes et applications biophysique des méthodes de spectroscopie de résonance magnétique nucléaire et électronique	Bernard Gallez Bénédicte Jordan (coord.)	22.5h	3 Credits	q2	x	
⊗ WFARM2527	Biomatériaux et ingénierie tissulaire	Christiani Andrade Amorim Anne Des Rieux	22.5h	3 Credits	q2	x	
⊗ WFARM2529	Produits issus des biotechnologies et vaccins	Karin Hardt Mustapha Najimi (coord.)	22.5h	3 Credits	q2	x	

**OPTION PRODUCTION, CONTRÔLE ET RÉGLEMENTATION [16.0]**

Cette option regroupe les cours en rapport immédiat avec les activités spécifiques des pharmaciens dans l'industrie.

● Mandatory

△ Courses not taught during 2020-2021

⊕ Periodic courses taught during 2020-2021

⊗ Optional

⊖ Periodic courses not taught during 2020-2021

■ Activity with requisites

Click on the course title to see detailed informations (objectives, methods, evaluation...)

Year

1 2

○ **Content:**

○ **Cours obligatoires (10 credits)**

● WFARM2104	<a href="#">GOOD MANUFACTURING AND QUALITY</a>	Joëlle Leclercq (coord.) Thierry Ponce Véronique Prétat	30h+15h	3 Credits	q2	x	
● WFARM2266	<a href="#">Analyse des médicaments issus des biotechnologies</a>	Laure Bindels Giulio Muccioli (coord.)	22.5h	3 Credits	q1		x
● WFARM2210	<a href="#">Contact en milieu professionnel (stage 1 mois)</a>	Marie-Paule Mingeot (coord.)		4 Credits	q1		x

○ **Cours au choix (6 credits)**

L'étudiant choisit 2 cours dans la liste suivante. Avec l'accord du conseiller aux études, un autre cours pourrait être choisi mais la compatibilité horaire avec l'ensemble du programme pourrait ne pas être assurée.

⊗ WFARM2506	<a href="#">Formes pharmaceutiques et biodisponibilité</a>	Laure Elens (coord.) Véronique Prétat	22.5h	3 Credits	q2	x	
⊗ WFARM2508	<a href="#">Isolation and Structural Analysis of Natural Products</a>	Joëlle Leclercq (coord.) Giulio Muccioli	22.5h	3 Credits	q2		x
⊗ WFARM2512	<a href="#">NEW DRUG DELIVERY SYSTEMS</a>	Anne Des Rieux Véronique Prétat (coord.) Rita Vanbever	22.5h	3 Credits	q2		x
⊗ WFARM2503	<a href="#">Complements of pharmacognosy and of phytotherapy</a>	Joëlle Leclercq	22.5h	3 Credits	q2		x
⊗ WFARM2501	<a href="#">Chimie pharmaceutique avancée et drug design</a>	Raphaël Frédéric Raphaël Frédéric (compensates Didier Lambert) Giulio Muccioli (coord.)	22.5h	3 Credits	q2		x
⊗ WFARM2520	<a href="#">Principes et applications biophysique des méthodes de spectroscopie de résonance magnétique nucléaire et électronique</a>	Bernard Gallez Bénédicte Jordan (coord.)	22.5h	3 Credits	q2		x
⊗ WFARM2526	<a href="#">Pharmacotechnie</a>		22.5h	3 Credits	q2	△	x

**OPTION BIOPHARMACIE ET PHARMACOTOXICOLOGIE [16.0]**

Au travers d'une formation complémentaire en pharmacocinétique et toxicologie, cette option vise à mieux connaître le destin du médicament dans l'organisme, ainsi qu'à mieux en comprendre l'éventuelle toxicité.

○ Mandatory

△ Courses not taught during 2020-2021

⊕ Periodic courses taught during 2020-2021

⊗ Optional

⊖ Periodic courses not taught during 2020-2021

■ Activity with requisites

Click on the course title to see detailed informations (objectives, methods, evaluation...)

Year

1 2

o **Content:**

o **Cours obligatoires (10 credits)**

○ WFARM2180	Organotoxicity : molecular, cellular and functional aspects	Olivier Feron (coord.) Philippe Hantson Philippe Lysy Xavier Wittebole	30h+15h	3 Credits	q2	x	
○ WFARM2244	Biologie clinique et monitoring thérapeutique	Laure Elens (coord.) Vincent Haufroid	22.5h	3 Credits	q1		x
○ WFARM2210	Contact en milieu professionnel (stage 1 mois)	Marie-Paule Mingeot (coord.)		4 Credits	q1		x

o **Cours au choix (6 credits)**

L'étudiant choisit 2 cours dans la liste suivante. Avec l'accord du conseiller aux études, un autre cours pourrait être choisi mais la compatibilité horaire avec l'ensemble du programme pourrait ne pas être assurée.

⊗ WFARM2502	Further development in analytical toxicology and phytopharmacy	Pierre Wallemacq	22.5h	3 Credits	q2	x	
⊗ WFARM2506	Formes pharmaceutiques et biodisponibilité	Laure Elens (coord.) Véronique Prétat	22.5h	3 Credits	q2	x	
⊗ WFARM2511	Méthodologie des mesures radio-actives en recherche pharmaceutique et biomédicale	Bernard Gallez	22.5h	3 Credits	q2	x	
⊗ WFARM2512	NEW DRUG DELIVERY SYSTEMS	Anne Des Rieux Véronique Prétat (coord.) Rita Vanbever	22.5h	3 Credits	q2	x	
⊗ WFARM2513	Pharmacocinétique approfondie	Laure Elens	22.5h	3 Credits	q2	x	
⊗ WFARM2514	Pharmacodépendance et toxicomanie	Laure Bindels Philippe de Timary Sophie Gohy Philippe Hantson Vincent Haufroid Emmanuel Hermans (coord.) Denis Jacques Didier Lambert Peter Starkel Miikka Vikkula	22.5h	3 Credits	q2	x	
⊗ WFARM2527	Biomatériaux et ingénierie tissulaire	Christiani Andrade Amorim Anne Des Rieux	22.5h	3 Credits	q2	x	

**OPTION RECHERCHES EN SCIENCES PHARMACEUTIQUES [16.0]**

Réservée aux étudiants en finalité approfondie, cette option comprend un enseignement spécifique en biostatistique ainsi qu'un large éventail de cours au choix permettant d'approfondir certains domaines des sciences pharmaceutiques en rapport direct avec le projet de recherche.

● Mandatory

△ Courses not taught during 2020-2021

⊕ Periodic courses taught during 2020-2021

⊗ Optional

⊖ Periodic courses not taught during 2020-2021

■ Activity with requisites

Click on the course title to see detailed informations (objectives, methods, evaluation...)

Year

1 2

○ **Content:**

○ **Cours obligatoire (16 credits)**

○ WFARM2177	<a href="#">Biostatistics</a>	Laure Elens	20h+10h	3 Credits	q2	x	
○ WFARM2175	<a href="#">Etude critique d'un article de recherche en sciences pharmaceutiques</a>	Olivia Dalleur Anne Des Rieux Raphaël Frédéric Bernard Gallez (coord.) Joëlle Leclercq Marie-Paule Mingeot Giulio Muccioli Véronique Prémat Pierre Sonveaux Françoise Van Bambeke	40h	4 Credits	q2	x	
○ WFARM2275	<a href="#">Exercice de communication scientifique</a> ■	Olivia Dalleur Anne Des Rieux Raphaël Frédéric Bernard Gallez (coord.) Joëlle Leclercq Marie-Paule Mingeot Giulio Muccioli Véronique Prémat Pierre Sonveaux Françoise Van Bambeke	30h	2 Credits	q1		x
○ WFARM2286	<a href="#">Démarche expérimentale en recherche pharmaceutique</a>			7 Credits	q2		x

## Course prerequisites

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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:

- transform a prerequisite into a corequisite within the same year (to enable the student to continue his or her studies with a sufficient annual course load)
- require the student to combine registration in two separate CUs which it considers necessary from a pedagogical point of view.

For more information, please consult the [Academic Regulations and Procedures](https://uclouvain.be/fr/decouvrir/rgee.html) (<https://uclouvain.be/fr/decouvrir/rgee.html>).

### # Prerequisites list

- WFARM2211** "Séminaire de pharmacothérapie intégrée (2e partie)" has prerequisite(s) WFARM2111 ET WFARM2114 ET WFARM2116
- WFARM2111 - Séminaire de pharmacothérapie intégrée (1re partie)
  - WFARM2114 - Pharmacologie spéciale et éléments de pharmacothérapie 1re partie
  - WFARM2116 - Pharmacologie spéciale et éléments de pharmacothérapie 2e partie
- WFARM2235** "Travaux pratiques de pharmacie galénique" has prerequisite(s) WFARM2156 ET WFARM2157
- WFARM2156 - Pharmacie galénique 1re partie
  - WFARM2157 - Pharmacie galénique 2e partie
- WFARM2239** "Sémiologie" has prerequisite(s) WFARM2134
- WFARM2134 - Gestion des situations aiguës
- WFARM2256** "Soins pharmaceutiques en officine et stage" has prerequisite(s) WFARM2134 ET WFARM2111 ET WFARM2114 ET WFARM2116 ET WFARM2156 ET WFARM2157
- WFARM2134 - Gestion des situations aiguës
  - WFARM2111 - Séminaire de pharmacothérapie intégrée (1re partie)
  - WFARM2114 - Pharmacologie spéciale et éléments de pharmacothérapie 1re partie
  - WFARM2116 - Pharmacologie spéciale et éléments de pharmacothérapie 2e partie
  - WFARM2156 - Pharmacie galénique 1re partie
  - WFARM2157 - Pharmacie galénique 2e partie
- WFARM2275** "Exercice de communication scientifique" has prerequisite(s) WFARM2171 ET WFARM2175 ET WFARM2176
- WFARM2171 - Travail expérimental de recherche en sciences pharmaceutiques (1re partie)
  - WFARM2175 - Etude critique d'un article de recherche en sciences pharmaceutiques
  - WFARM2176 - Présentation d'un travail de recherche en sciences pharmaceutiques

## The programme's courses and learning outcomes

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For each UCLouvain training programme, a [reference framework of learning outcomes](#) specifies the competences expected of every graduate on completion of the programme. You can see the contribution of each teaching unit to the programme's reference framework of learning outcomes in the document "*In which teaching units are the competences and learning outcomes in the programme's reference framework developed and mastered by the student?*"

## FARM2M - Information

### Access Requirements

*In the event of the divergence between the different linguistic versions of the present conditions, the French version shall prevail*  
*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.*

#### SUMMARY

- > [Specific access requirements](#)
- > [University Bachelors](#)
- > [Non university Bachelors](#)
- > [Holders of a 2nd cycle University degree](#)
- > [Holders of a non-University 2nd cycle degree](#)
- > [Access based on validation of professional experience](#)
- > [Access based on application](#)
- > [Admission and Enrolment Procedures for general registration](#)

### Specific access requirements

Pour les étudiants issus de tout autre programme que ceux repris dans les conditions d'admission, un dossier mentionnant les motivations et les crédits obtenus au cours des études précédentes est à soumettre à la commission d'admission de l'Ecole de pharmacie pour le 10 septembre au plus tard.

#### University Bachelors

Diploma	Special Requirements	Access	Remarks
<b>UCLouvain Bachelors</b>			
Titre inconnu:lfarm1ba		Direct access	
Titre inconnu:ldent1ba (unknown URL) Titre inconnu:lbir1ba		Access with additional training	
Titre inconnu:lchim1ba Titre inconnu:lsbim1ba	Titre inconnu:lminfarm	Access with additional training	
Titre inconnu:lchim1ba Titre inconnu:lsbim1ba		Access based on application	
<b>Others Bachelors of the French speaking Community of Belgium</b>			
Bachelier en sciences pharmaceutiques		Direct access	
Bacheliers en sciences dentaires Bachelier en médecine Bachelier en sciences de l'ingénieur, orientation bioingénieur Bachelier en sciences biomédicales Bachelier en sciences chimiques		Access with additional training	
<b>Bachelors of the Dutch speaking Community of Belgium</b>			
Bachelier en sciences pharmaceutiques		Direct access	Connaissance du français
Bacheliers en sciences dentaires Bachelier en médecine Bachelier en sciences de l'ingénieur, orientation bioingénieur Bachelier en sciences biomédicales Bachelier en sciences chimiques		Access with additional training	Connaissance du français
<b>Foreign Bachelors</b>			
Diplômes équivalents au bachelier en sciences pharmaceutiques		Access based on application	Connaissance du français

## Non university Bachelors

> Find out more about [links](https://uclouvain.be/fr/etudier/passerelles) (https://uclouvain.be/fr/etudier/passerelles) to the university

## Holders of a 2nd cycle University degree

Diploma	Special Requirements	Access	Remarks
<b>"Licenciés"</b>			
Pharmaciens		Direct access	
Médecins		Access based on application	
Bioingénieurs			
Dentistes			
Licenciés en sciences biomédicales			
Licenciés en chimie			
<b>Masters</b>			
Titre inconnu:lfarm2m		Direct access	
Titre inconnu:lsbim2m		Access based on application	
Titre inconnu:lmed2m			
Titre inconnu:ldent2m			
Titre inconnu:lchim2m			
Titre inconnu:lbirc2m			

## Holders of a non-University 2nd cycle degree

### Access based on validation of professional experience

> See the website [Valorisation des acquis de l'expérience](#)

It is possible to gain admission to all masters courses via the validation of professional experience procedure.

### Access based on application

Reminder : all Masters (apart from Advanced Masters) are also accessible on file.

### Admission and Enrolment Procedures for general registration

Pour les étudiants issus de tout autre programme que ceux repris dans les conditions d'admission, un dossier mentionnant les motivations et les crédits obtenus au cours des études précédentes est à soumettre à la commission d'admission de l'École de pharmacie pour le 10 septembre au plus tard.



## Supplementary classes

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**To access this Master, students must have a good command of certain subjects. If this is not the case, they must add supplementary classes at the beginning of their Master's programme in order to obtain the prerequisites for these studies.**

● Mandatory

△ Courses not taught during 2020-2021

⊕ Periodic courses taught during 2020-2021

⊗ Optional

⊖ Periodic courses not taught during 2020-2021

■ Activity with requisites

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Click on the course title to see detailed informations (objectives, methods, evaluation...)

### ● Supplementary classes

Maximum 60 credits

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## Teaching method

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The teaching provided on the Master in Pharmacy programme is based on a variety of teaching methods enabling an integrated approach to the theory and practical aspects of the different disciplines relating to the professions of pharmacist and pharmaceutical researcher.

The theory classes are aimed at developing a specialised knowledge base in pharmacy using simple and complex practical examples of pharmaceutical problems. A number of compulsory and elective theory classes are also associated with a cross-functional activity integrating different disciplines by means of practical work in laboratories, seminars and case studies, during which the students become actively involved in their own learning.

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. Another objective is to produce a thesis in which the students address, in a detailed and integrated manner, an original question related to one or more pharmaceutical fields, under the guidance of an expert in this area.

In the Research focus, the Master in Pharmacy teaching enables the students to work in a research laboratory or clinical pharmacy service, where they can discover the world of research through individual work based on experimentation and data analysis.

The training also includes a 6-month work placement in a dispensary, enabling the students to learn about the profession on their own and under the guidance of a pharmacist. An orientation placement, also compulsory, enables them to discover the other facets of the pharmacist's profession in society.

The theory-based and practical training involves pharmacy experts throughout the academic programme. This specialist supervision ensures a balance between the expected learning outcomes and current expectations of society in the field of pharmacy.

## Evaluation

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***The evaluation methods comply with the regulations concerning studies and exams (<https://uclouvain.be/fr/decouvrir/rgee.html>). 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. Finally, the Master's programme culminates in an integrated interdisciplinary oral exam in which the student has to analyse a prescription for one or more medications from various pharmaceutical perspectives (in particular: chemistry, galenics and pharmacology).

## Mobility and/or Internationalisation outlook

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Apart from studying for a whole year at another university (mainly Erasmus scheme) the option courses (all or some) or certain placements and/or research seminars may be replaced by a placement abroad (Erasmus scheme or similar).

The course on Health Economics and Pharmacoeconomics (2 credits) is a new course developed in partnership with KULeuven and is to be held partly at both sites.

The different option courses are accessible to bachelors in pharmacy from other Belgian or foreign as well as bachelors from other schools and faculties at UCL or other Belgian or foreign universities, subject to the agreement from the admission committee ([delphine.delhaye@uclouvain.be](mailto:delphine.delhaye@uclouvain.be)). The whole, or part of, the study programme for the Master in Pharmacy is open to foreign students under the Erasmus exchange scheme or other equivalents, subject to the agreement of the Erasmus coordinator ([veronique.preat@uclouvain.be](mailto:veronique.preat@uclouvain.be))

The Pharmacy School has ERASMUS agreements with the following universities :

Germany (Saarbrücken) ; Spain (Alcala de Henares, Madrid, Santiago de Compostela) ; France (Lille and Lyon) ; Greece (Patra) ; Italy (Bologna, Parma, Pisa) ; Netherlands (Utrecht) ; Portugal (Coimbra) ; United Kingdom (Bath).

## Possible trainings at the end of the programme

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Graduates of the Master in Pharmaceutical Sciences have access to the following training courses subject to any special conditions indicated therein (see these programs):

Advanced Masters :

Advanced Master in Clinical Biology

Advanced Master in Industrial Pharmacy

Advanced Master in Hospital Pharmacy

Doctoral programmes :

Doctorate in pharmacy

Doctorate in biomedical sciences

## Certificates

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University Certificate in pharmacy

University Certificate in pharmaceutical engineering and industrial technology

University Certificate in clinical pharmacy

University Certificate in radiopharmacy

## Contacts

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### Curriculum Management

Entity

Structure entity

Denomination

Faculty

Sector

Acronym

Postal address

SSS/FASB/FARM

([FARM](#))

Faculty of Pharmacy and Biomedical Sciences ([FASB](#))

Health Sciences ([SSS](#))

FARM

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Jury

- Marie-Paule Mingeot-Leclercq
- Olivier Feron

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- Marie-France Herent
- Anne Jacobs

