

**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

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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.

## FARM2M Programme

## Detailed programme by subject















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### CORE COURSES [74.0]

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- Mandatory
- ⊗ Optional
- △ Not offered in 2022-2023
- ⊙ Not offered in 2022-2023 but offered the following year
- ⊕ Offered in 2022-2023 but not the following year
- △ ⊕ Not offered in 2022-2023 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
○ WFARM2117	Analyse et contrôle de qualité des médicaments	Joëlle Leclercq (coord.) Giulio Muccioli	FR [q1] [30h] [3 Credits]  > English-friendly	X	
○ WFARM2118	Chimie médicinale	Raphaël Frédéric Didier Lambert Giulio Muccioli (coord.) Séverine Ravez (compensates) Raphaël Frédéric	FR [q2] [30h] [3 Credits]  > English-friendly	X	
○ WFARM2139	Pharmacocinetic, genomics and toxicology	Laure Bindels (coord.) Laure Elens Vincent Haufroid	FR [q1] [37.5h] [4 Credits]  > English-friendly	X	
○ WFARM2149	Pharmaceutical approach in nutrition	Nathalie Delzenne	FR [q2] [30h+15h] [3 Credits]  > English-friendly	X	
○ WFARM2156	Pharmacie galénique 1re partie	Anne des Rieux	FR [q1] [40h] [5 Credits]  > English-friendly	X	
○ WFARM2157	Pharmacie galénique 2e partie	Anne des Rieux (coord.) Rita Vanbever	FR [q2] [20h+28h] [5 Credits]  > English-friendly	X	
○ WFARM2114	Pharmacologie spéciale et éléments de pharmacothérapie 1re partie	Olivier Feron Emmanuel Hermans Jean-Christophe Jonas Françoise Van Bambeke (coord.)	FR [q1] [30h] [3 Credits]  > English-friendly	X	
○ WFARM2116	Pharmacologie spéciale et éléments de pharmacothérapie 2e partie	Chantal Dessy Olivier Feron Françoise Van Bambeke (coord.)	FR [q2] [26h] [3 Credits]  > English-friendly	X	
○ WFARM2111	Séminaire de pharmacothérapie intégrée (1re partie)	Chantal Dessy Nathalie Dujardin Olivier Feron Emmanuel Hermans Muriel Rocour Anne Spinewine Françoise Van Bambeke (coord.)	FR [q1+q2] [30h+15h] [5 Credits]  > English-friendly	X	
○ WFARM2236	Pharmacie et société	Catherine Druetz Alain Loute Christian Léonard Thierry Roisin Anne Spinewine (coord.)	FR [q1] [37.5h] [4 Credits] 	X	
○ WFARM2239	Sémiologie	Marie Baeck Benoît Boland (coord.) Pascale Cornette Thierry Detaille	FR [q1] [30h] [4 Credits] 	X	
○ WFARM2256	Soins pharmaceutiques en officine et stage 	Nathalie Dujardin Muriel Rocour Anne Thiry Stéphanie Valentin (coord.)	FR [q1+q2] [15h+40h] [12 Credits] 	X	
○ WFARM2209	Mémoire en sciences pharmaceutiques		FR [] [] [18 Credits] 	X	

### ○ Sciences religieuses

L'étudiant choisit un cours parmi les 3 suivants :

☒ LTECO2101	Questions of religious sciences: biblical readings	Claude Lichtert	FR [q1] [15h] [2 Credits] 	X	
☒ LTECO2102	Questions of religious sciences: reflections about christian faith	Arnaud Join-Lambert	FR [q1] [15h] [2 Credits] 	X	
☒ LTECO2103	Questions of religious sciences: questions about ethics	Eric Gaziaux	FR [q1] [15h] [2 Credits] 	X	

## LIST OF FOCUSES

- > [Research Focus](#) [ en-prog-2022-farm2m-wfarm200a ]  
 > [Professional Focus](#) [ en-prog-2022-farm2m-wfarm201s ]

## RESEARCH FOCUS [30.0]

- Mandatory
- ⊗ Optional
- △ Not offered in 2022-2023
- ⊖ Not offered in 2022-2023 but offered the following year
- ⊕ Offered in 2022-2023 but not the following year
- △ ⊕ Not offered in 2022-2023 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

### o Content:

○ WFARM2171	Travail expérimental de recherche en sciences pharmaceutiques (1re partie)		[FR] [q2] [ ] [6 Credits] 🌐 > English-friendly	X	
○ WFARM2176	Présentation d'un travail de recherche en sciences pharmaceutiques	Olivia Dalleur Anne des Rieux Amandine Everard Raphaël Frédéric Bernard Gallez (coord.) Joëlle Leclercq Giulio Muccioli Pierre Sonveaux Françoise Van Bambeke Rita Vanbever	[FR] [q2] [50h] [11 Credits] 🌐 > English-friendly	X	
○ WFARM2249	Séminaire d'intégration pharmaceutique (finalité approfondie) ■	Olivia Dalleur Nathalie Delzenne Anne des Rieux Olivier Feron Bernard Gallez Emmanuel Hermans (coord.) Joëlle Leclercq Giulio Muccioli Rita Vanbever	[FR] [q2] [40h] [8 Credits] 🌐 > English-friendly		X
○ WFARM2276	Travail expérimental de recherche en sciences pharmaceutiques		[FR] [q2] [ ] [5 Credits] 🌐 > English-friendly		X

## PROFESSIONAL FOCUS [30.0]

- Mandatory
- ⊗ Optional
- △ Not offered in 2022-2023
- ⊖ Not offered in 2022-2023 but offered the following year
- ⊕ Offered in 2022-2023 but not the following year
- △ ⊕ Not offered in 2022-2023 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 Content:

○ WFARM2135	Seminary and practical exercises integred of pharmaceutical sciences	Anne des Rieux Laure Elens Raphaël Frédérick Joëlle Leclercq Giulio Muccioli (coord.)	FR [q1+q2] [0h+160h] [9 Credits] 🌐	X
○ WFARM2196	Rational therapeutic choices (Introduction to evidence-based medicine and pharmacoecconomy)	Nathalie Dujardin Anne Spinewine (coord.) Sandy Tubeuf	FR [q1] [30h+10h] [4 Credits] 🌐	X
○ WFARM2134	Gestion des situations aigües	Pierre Bulpa (coord.) Maximilien Gourdin Geoffrey Horlait Henri Thonon	FR [q2] [15h] [2 Credits] 🌐	X
○ WFARM2235	PRACTICAL TRAINING IN PHARMACEUTICAL TECHNOLOGY 🟡	Anne des Rieux	FR [q1] [0h+120h] [5 Credits] 🌐	X
○ WFARM2211	Séminaire de pharmacothérapie intégrée (2e partie) 🟡	Olivia Dalleur Chantal Dessy Nathalie Dujardin Emmanuel Hermans Muriel Rocour Françoise Van Bambeke (coord.)	FR [q2] [0h+22.5h] [2 Credits] 🌐 > English-friendly	X
○ WFARM2259	Séminaire d'intégration pharmaceutique (finalité spécialisée) 🟡	Olivia Dalleur Nathalie Delzenne Anne des Rieux Olivier Feron Bernard Gallez Emmanuel Hermans (coord.) Joëlle Leclercq Giulio Muccioli Rita Vanbever	FR [q2] [40h] [8 Credits] 🌐 > English-friendly	X

## OPTIONS [16.0]

- > Option délivrance et suivi pharmaceutique [ en-prog-2022-farm2m-wfarm202o ]
- > Option innovation et conception du médicament [ en-prog-2022-farm2m-wfarm203o ]
- > Option production, contrôle et réglementation [ en-prog-2022-farm2m-wfarm204o ]
- > Option biopharmacie et pharmacotoxicologie [ en-prog-2022-farm2m-wfarm205o ]
- > Option recherches en sciences pharmaceutiques [ en-prog-2022-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
- ⊗ Optional
- △ Not offered in 2022-2023
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- △ ⊕ Not offered in 2022-2023 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 **Contenu:**o **Cours obligatoires (10 credits)**

o WFARM2123	Complément de pharmacothérapie	Chantal Dessy François Duhoux Nathalie Dujardin Anne Spinewine (coord.) Aline Wertz	10 [q2] [30h+15h] [3 Credits] 🌐	X
o WFARM2504	DERMOPHARMACY	Marie Baeck (coord.) Liliane Marot Isabelle Tromme	10 [q1] [22.5h] [3 Credits] 🌐	X
o WFARM2210	Contact en milieu professionnel (stage 1 mois)	Giulio Muccioli (coord.)	10 [q1] [] [4 Credits] 🌐	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.

⊗ WFARM2507	Introduction to pharmaceutical management	Yannick Biot	10 [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X
⊗ WFARM2509	Complementary medicines	Christophe Chantrain Olivia Dalleur (coord.) Joëlle Leclercq	10 [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X
⊗ WFARM2510	Veterinary drugs	Jean-Paul Dehoux Isabelle Donnay Françoise Van Bambeke (coord.)	10 [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X
⊗ WFARM2512	NEW DRUG DELIVERY SYSTEMS	Ana Beloqui Garcia (coord.) Anne des Rieux (coord.) Rita Vanbever	10 [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X
⊗ WFARM2514	Pharmacodépendance et toxicomanie	Lidvine Boland (compensates Laure Bindels) Philippe de Timary Sophie Gohy Philippe Hantson Vincent Haufroid Emmanuel Hermans (coord.) Denis Jacques Didier Lambert Peter Starkel Miikka Vikkula	10 [q2] [22.5h] [3 Credits] 🌐	X
⊗ WFARM2521	Recherche translationnelle : de la dysfonction biologique à la validation de nouveaux traitements	Mireille Al Houayek (compensates Raphaël Frédérick) Emmanuel Hermans Pierre Sonveaux (coord.)	10 [q2] [22.5h] [3 Credits] 🌐	X
⊗ WFARM2527	Biomatériaux et ingénierie tissulaire	Christiani Andrade Amorim Anne des Rieux	10 [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X
⊗ WFARM2529	Produits issus des biotechnologies et vaccins	Karin Hardt Mustapha Najimi (coord.)	10 [q2] [22.5h] [3 Credits] 🌐	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
- ⊗ Optional
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- 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

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**o Contant:****o Cours obligatoires (10 credits)**

○ WFARM2128	Processus de découverte, de développement et de mise sur le marché du médicament	Mireille Al Houayek (compensates Laure Bindels) Raphaël Frédérick Philippe Jacqmin Philippe Jacqmin (compensates Laure Bindels) Joëlle Leclercq Perrin Ngougni Pokem (compensates Séverine Henrard) Françoise Van Bambeke (coord.)	FR [q2] [30h+15h] [3 Credits] 🌐 > English-friendly	X
○ WFARM2515	Pharmacologie moléculaire	Mireille Al Houayek Emmanuel Hermans (coord.) Joseph Lorent Pierre Sonveaux	FR [q1] [22.5h] [3 Credits] 🌐 > English-friendly	X
○ WFARM2210	Contact en milieu professionnel (stage 1 mois)	Giulio Muccioli (coord.)	FR [q1] [] [4 Credits] 🌐	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	Mireille Al Houayek (compensates Didier Lambert) Mireille Al Houayek (compensates Raphaël Frédérick) Giulio Muccioli (coord.)	FR [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X
⊗ WFARM2503	Complements of pharmacognosy and of phytotherapy	Joëlle Leclercq	FR [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X
⊗ WFARM2508	Isolation and Structural Analysis of Natural Products	Joëlle Leclercq (coord.) Giulio Muccioli	FR [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X
⊗ WFARM2511	Méthodologie des mesures radio-actives en recherche pharmaceutique et biomédicale	Bernard Gallez	FR [q2] [22.5h] [3 Credits] 🌐	X
⊗ WFARM2521	Recherche translationnelle : de la dysfonction biologique à la validation de nouveaux traitements	Mireille Al Houayek (compensates Raphaël Frédérick) Emmanuel Hermans Pierre Sonveaux (coord.)	FR [q2] [22.5h] [3 Credits] 🌐	X
⊗ WFARM2520	Principes et applications biophysique des méthodes de spectroscopie de résonance magnétique nucléaire et électronique	Bernard Gallez Bénédicte Jordan (coord.)	FR [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X
⊗ WFARM2527	Biomatériaux et ingénierie tissulaire	Christiani Andrade Amorim Anne des Rieux	FR [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X

Year

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WFARM2529

Produits issus des biotechnologies et vaccins

Karin Hardt  
Mustapha  
Najimi (coord.)

[q2] [22.5h] [3 Credits]

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.

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Year

1 2

**o Content:****o Cours obligatoires (10 credits)**

○ WFARM2104	<a href="#">GOOD MANUFACTURING AND QUALITY</a>	Anne des Rieux Joëlle Leclercq (coord.) Thierry Pronce	[FR] [q2] [30h+15h] [3 Credits] 🌐 > English-friendly	X	
○ WFARM2266	<a href="#">Analyse des médicaments issus des biotechnologies</a>	Laure Bindels Giulio Muccioli (coord.)	[FR] [q1] [22.5h] [3 Credits] 🌐 > English-friendly		X
○ WFARM2210	<a href="#">Contact en milieu professionnel (stage 1 mois)</a>	Giulio Muccioli (coord.)	[FR] [q1] [] [4 Credits] 🌐		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.

⊗ WFARM2506	<a href="#">Formes pharmaceutiques et biodisponibilité</a>	Ana Beloqui Garcia Laure Elens (coord.)	[FR] [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X	
⊗ WFARM2508	<a href="#">Isolation and Structural Analysis of Natural Products</a>	Joëlle Leclercq (coord.) Giulio Muccioli	[FR] [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X	
⊗ WFARM2512	<a href="#">NEW DRUG DELIVERY SYSTEMS</a>	Ana Beloqui Garcia (coord.) Anne des Rieux (coord.) Rita Vanbever	[FR] [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X	
⊗ WFARM2503	<a href="#">Complements of pharmacognosy and of phytotherapy</a>	Joëlle Leclercq	[FR] [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X	
⊗ WFARM2501	<a href="#">Chimie pharmaceutique avancée et drug design</a>	Mireille Al Houayek (compensates) Didier Lambert Mireille Al Houayek (compensates) Raphaël Frédérick Giulio Muccioli (coord.)	[FR] [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X	
⊗ WFARM2520	<a href="#">Principes et applications biophysique des méthodes de spectroscopie de résonance magnétique nucléaire et électronique</a>	Bernard Gallez Bénédicte Jordan (coord.)	[FR] [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X	
⊗ WFARM2526	<a href="#">Pharmacotechnie</a>		[FR] [q2] [22.5h] [3 Credits] △ 🌐	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.

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- ⊗ Optional
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- 🌐 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

**o Content:****o Cours obligatoires (10 credits)**

○ WFARM2180	Organotoxicity : molecular, cellular and functional aspects	Olivier Feron (coord.) Philippe Hantson Philippe Lysy Xavier Wittebole	FR [q2] [30h+15h] [3 Credits] 🌐 > English-friendly	X	
○ WFARM2244	Biologie clinique et monitoring thérapeutique	Laure Elens (coord.) Vincent Haufroid	FR [q1] [22.5h] [3 Credits] 🌐 > English-friendly		X
○ WFARM2210	Contact en milieu professionnel (stage 1 mois)	Giulio Muccioli (coord.)	FR [q1] [] [4 Credits] 🌐		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	Introduction to analytical toxicology	Laure Bindels (coord.) Lidvine Boland (coord.)	FR [q2] [22.5h] [3 Credits] 🌐	X	
⊗ WFARM2506	Formes pharmaceutiques et biodisponibilité	Ana Beloqui Garcia Laure Elens (coord.)	FR [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X	
⊗ WFARM2511	Méthodologie des mesures radio-actives en recherche pharmaceutique et biomédicale	Bernard Gallez	FR [q2] [22.5h] [3 Credits] 🌐	X	
⊗ WFARM2512	NEW DRUG DELIVERY SYSTEMS	Ana Beloqui Garcia (coord.) Anne des Rieux (coord.) Rita Vanbever	FR [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X	
⊗ WFARM2513	Pharmacocinétique approfondie	Laure Elens	FR [q2] [22.5h] [3 Credits] 🌐 > English-friendly	X	
⊗ WFARM2514	Pharmacodépendance et toxicomanie	Lidvine Boland (compensates) Laure Bindels) Philippe de Timary Sophie Gohy Philippe Hantson Vincent Haufroid Emmanuel Hermans (coord.) Denis Jacques Didier Lambert Peter Starkel Miikka Vikkula	FR [q2] [22.5h] [3 Credits] 🌐	X	
⊗ WFARM2527	Biomatériaux et ingénierie tissulaire	Christiani Andrade Amorim Anne des Rieux	FR [q2] [22.5h] [3 Credits] 🌐 > English-friendly	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
- ✂ Optional
- △ Not offered in 2022-2023
- ⊖ Not offered in 2022-2023 but offered the following year
- ⊕ Offered in 2022-2023 but not the following year
- △ ⊕ Not offered in 2022-2023 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

**o Content:****o Cours obligatoire (16 credits)**

● WFARM2177	Biostatistics	Laure Elens	FR [q2] [20h+10h] [3 Credits] 🌐	X
● WFARM2175	Etude critique d'un article de recherche en sciences pharmaceutiques	Olivia Dalleur Anne des Rieux Amandine Everard Raphaël Frédéric Bernard Gallez (coord.) Joëlle Leclercq Giulio Muccioli Pierre Sonveaux Françoise Van Bambeke Rita Vanbever	FR [q2] [40h] [4 Credits] 🌐 > English-friendly	X
● WFARM2275	Exercice de communication scientifique ■	Olivia Dalleur Anne des Rieux Amandine Everard Raphaël Frédéric Bernard Gallez (coord.) Joëlle Leclercq Giulio Muccioli Pierre Sonveaux Françoise Van Bambeke Rita Vanbever	FR [q1] [30h] [2 Credits] 🌐 > English-friendly	X
● WFARM2286	Démarche expérimentale en recherche pharmaceutique ■		FR [q2] [] [7 Credits] 🌐 > English-friendly	X

## 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, students must take supplementary classes chosen by the faculty to satisfy course prerequisites.**

- Mandatory
- ⌘ Optional
- △ Not offered in 2022-2023
- ⊙ Not offered in 2022-2023 but offered the following year
- ⊕ Offered in 2022-2023 but not the following year
- △ ⊕ Not offered in 2022-2023 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, ...)

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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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## 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

- 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) WFARM2117 ET WFARM2118 ET WFARM2156 ET WFARM2157
- WFARM2117 - Analyse et contrôle de qualité des médicaments
  - WFARM2118 - Chimie médicinale
  - WFARM2156 - Pharmacie galénique 1re partie
  - WFARM2157 - Pharmacie galénique 2e partie
- WFARM2249** "Séminaire d'intégration pharmaceutique (finalité approfondie)" has prerequisite(s) WFARM2117 ET WFARM2118 ET WFARM2156 ET WFARM2157 ET WFARM2114 ET WFARM2116
- WFARM2117 - Analyse et contrôle de qualité des médicaments
  - WFARM2118 - Chimie médicinale
  - WFARM2156 - Pharmacie galénique 1re partie
  - WFARM2157 - Pharmacie galénique 2e partie
  - WFARM2114 - Pharmacologie spéciale et éléments de pharmacothérapie 1re partie
  - WFARM2116 - Pharmacologie spéciale et éléments de pharmacothérapie 2e partie
- WFARM2256** "Soins pharmaceutiques en officine et stage" has prerequisite(s) WFARM2111 ET WFARM2114 ET WFARM2116 ET WFARM2156 ET WFARM2157
- 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
- WFARM2259** "Séminaire d'intégration pharmaceutique (finalité spécialisée)" has prerequisite(s) WFARM2117 ET WFARM2118 ET WFARM2156 ET WFARM2157 ET WFARM2114 ET WFARM2116
- WFARM2117 - Analyse et contrôle de qualité des médicaments
  - WFARM2118 - Chimie médicinale
  - WFARM2156 - Pharmacie galénique 1re partie
  - WFARM2157 - Pharmacie galénique 2e partie
  - WFARM2114 - Pharmacologie spéciale et éléments de pharmacothérapie 1re partie
  - WFARM2116 - Pharmacologie spéciale et éléments de pharmacothérapie 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
- WFARM2286** "Démarche expérimentale en recherche pharmaceutique" has prerequisite(s) WFARM2171 ET WFARM2176
- WFARM2171 - Travail expérimental de recherche en sciences pharmaceutiques (1re partie)
  - WFARM2176 - Présentation d'un travail de recherche en sciences pharmaceutiques

## The programme's courses and learning outcomes

For each UCLouvain training programme, a [reference framework of learning outcomes](#) specifies 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.

## FARM2M - Information

### Access Requirements

Master course admission requirements are defined by the French Community of Belgium Decree of 7 November 2013 defining the higher education landscape and the academic organisation of courses.

General and specific admission requirements for this programme must be satisfied at the time of enrolling at the university.

Unless explicitly mentioned, the bachelor's, master's and licentiate degrees listed in this table or on this page are to be understood as those issued by an institution of the French, Flemish or German-speaking Community, or by the Royal Military Academy.

**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](#)
- > [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		Access with additional training	
Titre inconnu:lmed1ba			
Titre inconnu:lbir1ba			
Titre inconnu:lchim1ba	Titre inconnu:lminfarm	Access with additional training	
Titre inconnu:lsbim1ba			
<b>Others Bachelors of the French speaking Community of Belgium</b>			
Bachelier en sciences pharmaceutiques		Direct access	
Bacheliers en sciences dentaires		Access with additional training	
Bachelier en médecine			
Bachelier en sciences de l'ingénieur, orientation bioingénieur			
Bachelier en sciences biomédicales			
Bachelier en sciences chimiques			
<b>Bachelors of the Dutch speaking Community of Belgium</b>			
Bachelier en sciences pharmaceutiques		Direct access	Connaissance du français
Bacheliers en sciences dentaires		Access with additional training	Connaissance du français
Bachelier en médecine			
Bachelier en sciences de l'ingénieur, orientation bioingénieur			
Bachelier en sciences biomédicales			
Bachelier en sciences chimiques			
<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](#) 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	
		Access with additional training	
Titre inconnu:lsbim2m		Access based on application	
Titre inconnu:lmed2m			
Titre inconnu:ldent2m			
Titre inconnu:lchim2m			
Titre inconnu:lbirc2m			
		Access based on application	

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

### Access based on validation of professional experience

> It is possible, under certain conditions, to use one's personal and professional experience to enter a university course without having the required qualifications. However, validation of prior experience does not automatically apply to all courses. Find out more about [Validation of priori experience](#).

### Access based on application

Access based on application : access may be granted either directly or on the condition of completing additional courses of a maximum of 60 ECTS credits, or refused.

## Admission and Enrolment Procedures for general registration

## 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 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](#). 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

Avenue Mounier 73 - bte B1.73.03

1200 Woluwe-Saint-Lambert

Tel: +32 (0)2 764 73 60

Academic supervisor: [Giulio Muccioli](#)

Jury

- Président du jury d'examens Master: [Marie-Paule Mingeot-Leclercq](#)
- Secrétaire du jury d'examens Master: [Olivier Feron](#)

Useful Contact(s)

- Conseiller aux études: [Marie-France Herent](#)
- Contact: [secretariat-farm@uclouvain.be](mailto:secretariat-farm@uclouvain.be)

