

**At Bruxelles Woluwe - 120 credits - 2 years - Day schedule - In French**Dissertation/Graduation Project : **YES** - Internship : **YES**Activities in English: **optional** - 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: **SBIM2M** - Francophone Certification Framework: 7**Table of contents**

Introduction .....	2
Teaching profile .....	3
Learning outcomes .....	3
Programme structure .....	4
Programme .....	4
Detailed programme by subject .....	4
Supplementary classes .....	22
Course prerequisites .....	27
The programme's courses and learning outcomes .....	28
Information .....	29
Access Requirements .....	29
Teaching method .....	32
Evaluation .....	32
Mobility and/or Internationalisation outlook .....	32
Possible trainings at the end of the programme .....	32
Contacts .....	32

## SBIM2M - Introduction

### Introduction

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## SBIM2M - Teaching profile

### Learning outcomes

Master in Biomedicine students must endeavour to become health sector professionals capable of conducting and interpreting scientific projects aimed at improving, diagnosing and treating human diseases. To this end, students will apply themselves to developing the necessary skills and knowledge for the acquisition and robust analysis of biomedical observations and the planning of original research projects in the field of human health.

Through their choice of focus and option, students pursuing the Master in Biomedicine programme will study in depth a specific area of expertise, such as: molecular and cellular psychopathology, cancerology, neuroscience, nutrition, toxicology or clinical research. In the Master's programme, the emphasis is placed on practical training, through the completion of a research project in a health science laboratory and by means of a work placement in a professional environment, possibly abroad.

The objective of the School of Biomedical Sciences is to produce not only experts in the major areas of biomedical knowledge, but also medical research professionals who will help shape the diagnostic and therapeutic developments of the future.

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

1. Use their integrated and evolving knowledge in biomedicine

1.a Use the general methodologies and knowledge in experimental biomedicine: normal and pathological biochemistry and molecular biology, cellular biology, general and special histology, general anatomy, general and special physiology.

1.b Understand and review the experimental approaches and observation methods that resulted in this knowledge base

1.c Display command of modern knowledge sources and be able to identify from them new and specific information, and to review and consider them.

2. Develop an experimental strategy and conduct biomedical experiments

2.a Identify and formulate a biomedical research problem:

i.e.:

- formulate hypotheses and identify the implications;

- then deduce a structured experimental strategy.

2.b Plan and organise the successive steps of an experiment protocol:

i.e.:

- understand and describe point by point experiment protocols accurately and precisely, so that they may be reproduced by another scientist;

- plan the entire monitoring procedure (positive and negative checks).

2.c Manipulate biological and chemical equipment, demonstrating manual dexterity and a meticulous approach and observing laboratory best practices, including safety and waste management.

2.d Display command of measuring and imaging instruments, as well as the IT tools associated with them.

2.e Utilise the results of biological or clinical analyses stored in databases.

3. Analyse, review and draw conclusions from biomedical experiments

3.a Analyse the observations in a robust and critical manner:

i.e.:

- develop analogical and deductive reasonings;

- identify correlation and causality links;

- identify and correct errors of logic.

3.b Interpret and represent the results of experiments by means of mathematical modelling, graphical representations, reasoning and statistical tools:

i.e.

- utilise the dispersion of continuous variables as a source of information.

3.c Demonstrate their openness and creativity by recognising failures and identifying the causes; recognising unexpected observations and identifying their usefulness; reformulating their original hypotheses and developing a counter-hypothesis.

4. Communicate and present an argument effectively, both verbally and in writing

4.a Improve their biomedical vocabulary and use it in a precise and balanced manner in French and scientific English.

4.b Write scientific reports in French and English in accordance with scientific publication standards in biomedicine:

i.e.:

- argue the pertinence of the experimental strategies selected and the conclusions put forward;

- compare these data with those of similar studies published in scientific literature;

- identify any differences, suggest possible causes and plan any necessary additional experiments.

4.c Deliver an oral presentation in accordance with scientific standards in biomedicine:

i.e.:

- outline in detail the experimental approach used and the results obtained, in order to discuss them with the other members of the team.

5. Conduct themselves as professional researchers, equipped to set out on a scientific career

5.a Work as part of a team of researchers.

5.b Practise scientific integrity:

i.e.:

- recognise their errors and correct them;
- quote their sources and avoid plagiarism;
- understand and apply the rules relating to experimentation.

5.c Develop their learning by cultivating scientific curiosity and participate in the dissemination of knowledge based on robust scientific thinking.

5.d Understand the rules of scientific publication.

6. If they choose the Research focus: display command of the specific knowledge base and conduct an original research project in a specialist field of biomedicine

6.a Have a comprehensive understanding of the fundamental principles and concepts of one of the following areas of biomedicine: molecular and cellular pathophysiology, cancerology or neuroscience; understand the diagnostic and therapeutic developments associated with the chosen field.

6.b Understand the constraints on the development of a scientific project, whether it concerns basic or applied research; structure and substantiate a funding application; identify the subject of a patent and be familiar with the submission procedure.

6.c Use the skills acquired during the Master's programme in a new professional environment, whether it is an institution or a company involved in biomedical research.

7. If they choose the Professional focus in nutrition, conduct themselves as experts in forging a link between nutrition and health, able to adopt a solid scientific and critical approach in the various professional environments concerned

7.a Have an in-depth understanding of the fundamental principles and concepts of basic and clinical nutrition and be able to use them to identify and test research hypotheses concerning mechanisms, prevention, diagnosis and treatment in the field of nutrition.

7.b Understand the constraints on the development of a scientific project, whether it concerns basic or applied research; structure and substantiate a funding application.

7.c Use the skills acquired during the Master's programme in a new professional environment, whether it is an institution or a company involved in nutrition in the broadest sense.

8. If they choose the Professional focus in toxicology: incorporate the multidisciplinary skills required to evaluate and prevent risks to human health caused by chemical

8.a Understand and use the fundamental principles and concepts of modern toxicology.

8.b Plan, conduct and interpret an experimental toxicological study.

8.c Critically analyse and summarise the available toxicological data for a chemical substance and incorporate this information in a regulatory context (in particular the European regulation REACh).

9. If they choose the Professional focus in clinical biomedicine: incorporate the knowledge and skills required to participate in large-scale clinical studies

9.a Incorporate the knowledge and skills enabling them to understand the purpose and pertinence of a new diagnostic or therapeutic tool in relation to a human pathology.

9.b Plan, conduct and interpret a large-scale clinical study, applying the appropriate IT and statistical analyses.

## Programme structure

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The programme is made up as follows :

- 1.) core subjects of 70 credits.
- 2.) a research focus or one of three professional focuses of 30 credits.
- 3.) an optional subject of 20 credits.

Whatever the focus or the options chosen, the programme of this master shall totalise 120 credits, spread over two years of studies each of 60 credits.

To access this master, the student must master certain subjects. If this is not the case, he must add additional lessons at the start of his master's program aimed at acquiring the prerequisite subjects for the studies concerned.

## SBIM2M Programme

## Detailed programme by subject

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## CORE COURSES

- Mandatory
- ⊗ Optional
- △ Not offered in 2023-2024
- ⊙ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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

## ○ Mémoire

○ WSBIM2198	<a href="#">Pre-thesis in biomedical sciences</a>	Charles De Smet (coord.)	[FR] [q2] [ ] [9 Credits] 🌐 > English-friendly	X	
○ WSBIM2298	<a href="#">Experimental dissertation in biomedical sciences</a> ■	Charles De Smet (coord.)	[FR] [q1] [ ] [20 Credits] 🌐 > English-friendly		X

## ○ Apprentissage de l'approche expérimentale

○ WSBIM2197	<a href="#">Laboratory internship (part 1)</a>	Charles De Smet (coord.)	[FR] [q2] [ ] [19 Credits] 🌐 > English-friendly	X	
○ WSBIM2297	<a href="#">Laboratory internship (Part 2)</a> ■	Charles De Smet (coord.)	[FR] [q1] [ ] [20 Credits] 🌐 > English-friendly		X

## ○ Sciences religieuses (2 credits)

L'étudiant choisit un cours parmi les 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-2023-sbim2m-wsbim200a ]
- > [Professional Focus : Human Nutrition](#) [ en-prog-2023-sbim2m-wsbim201s ]
- > [Professional Focus : Toxicology](#) [ en-prog-2023-sbim2m-wsbim202s ]
- > [Professional Focus : Clinical Biomedical Sciences](#) [ en-prog-2023-sbim2m-wsbim203s ]

## RESEARCH FOCUS [30.0]

- Mandatory
- ⊗ Optional
- △ Not offered in 2023-2024
- ⊖ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 or the following year
- Activity with requisites
- 🌐 Open to incoming exchange students
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1 2

### o Content:

#### o Cours obligatoire (3 credits)

○ WSBIM2280	<a href="#">Scientific communication workshop</a>	Luc Bertrand Cyril Corbet Charles De Smet (coord.) Wen-Hui Lien Nisha Limaye	EN [q1] [30h] [3 Credits] 🌐	X
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#### o Cours au choix de systèmes expérimentaux (3 credits)

L'étudiant choisit un cours parmi les 2 suivants.

⊗ WSBIM2112	<a href="#">Cell and molecular biology: experimental systems</a> <i>Ce cours WSBIM2112 est recommandé à l'étudiant qui a choisi l'option cancérologie ou pathophysiologie cellulaire et moléculaire.</i>	Jean-François Collet Anabelle Decottignies Charles Hachez Sophie Lucas (coord.) Christophe Pierreux Benoît Vanhollebeke	FR [q1] [20h] [3 Credits] 🌐 > English-friendly	X
⊗ WSBIM2151	<a href="#">Experimental approaches in neuroscience</a> <i>Ce cours est recommandé à l'étudiant qui a choisi l'option neurosciences.</i>	Roberta Gualdani Robert Hardwick Pascal Kienlen-Campard (coord.)	EN [q1] [30h] [3 Credits] 🌐	X

#### o Cours au choix de la finalité approfondie (14 credits)

L'étudiant choisit 14 crédits de cours au choix. Si certains cours que choisit l'étudiant sont offerts dans une finalité ou une option, ce recouvrement, entre les cours choisis et les cours d'une finalité ou d'une option, ne peut excéder 6 crédits.

⊗ WSBIM2114	<a href="#">Analysis of gene expression and function</a> <i>Ce cours est recommandé à l'étudiant qui a choisi l'option cancérologie ou pathophysiologie cellulaire et moléculaire.</i>	Jean Baptiste Demoulin Emmanuel Hermans Frédéric Lemaigre (coord.) Nisha Limaye Thomas Michiels Donatienne Tyteca	EN [q1] [39h] [4 Credits] 🌐	X
⊗ WSBIM2115	<a href="#">Protein structure / Function relationships</a> <i>Ce cours est recommandé à l'étudiant qui a choisi l'option cancérologie ou pathophysiologie cellulaire et moléculaire.</i>	Luc Bertrand Guido Bommer (coord.) Jean-François Collet Géraldine Laloux	EN [q1] [30h] [4 Credits] 🌐	X
⊗ WSBIM2145	<a href="#">Linear multi-predictor models applied to the health sciences</a> <i>Ce cours est recommandé à l'étudiant qui a choisi l'option cancérologie ou pathophysiologie cellulaire et moléculaire.</i>	Annie Robert	FR [q1] [30h+30h] [3 Credits] 🌐	X
⊗ WSBIM2290	<a href="#">Introduction to laboratory animal science</a>	Jean-Paul Dehoux	FR [q1] [37h] [3 Credits] 🌐	X

				Year	
				1	2
WSBIM2125	Atelier de modèles expérimentaux		FR [q2] [30h] [3 Credits]	x	
WSBIM1220	Neurobiology	Emmanuel Hermans (coord.) Aleksandar Jankovski Pascal Kienlen-Campard Marcus Missal	FR [q2] [30h] [3 Credits]	x	
WSBIM2152	Nervous and psychiatric diseases, theoretical and translational approaches <i>Ce cours est recommandé à l'étudiant qui a choisi l'option neurosciences.</i>	Philippe de Timary Riëm El Tahry Bernard Hanseeuw Emmanuel Hermans (coord.) Marie-Cécile Nassogne	FR [q1] [30h] [3 Credits]	x	
WSBIM2153	Cognitive neurosciences <i>Ce cours est recommandé à l'étudiant qui a choisi l'option neurosciences.</i>	Julie Duque Robert Hardwick Valéry Legrain Marcus Missal (coord.)	FR [q1] [30h] [4 Credits]	x	
WFARM2514	Drug dependence and addiction	Lidvine Boland (compensates Laure Bindels) Philippe de Timary Sophie Gohy Vincent Haufroid Emmanuel Hermans (coord.) Denis Jacques Didier Lambert Peter Starkel Miikka Vikkula Xavier Wittebole	FR [q2] [22.5h] [3 Credits]	x	
WPSYC2172	Techniques de psychiatrie biologique et imagerie en psychiatrie	Philippe de Timary	FR [q2] [15h] [2 Credits]	x	
WMDS1313	Microbiologie médicale	Benoît Kabamba-Mukadi Hector Rodriguez-Villalobos (coord.) Alexia Verroken	FR [q1] [45h+10h] [5 Credits]	x	
WSBIM2122	Omics data analysis	Laurent Gatto	FR [q1] [30h+10h] [3 Credits]	x	

### o Stage obligatoire au choix (10 credits)

En 2e bloc annuel de master, l'étudiant choisit un stage parmi les 3 suivants.

WSBIM2271	International research internship	Pascal Kienlen-Campard (coord.)	FR [q2] [] [10 Credits]		x
WSBIM2272	Work placement	Anabelle Decottignies (coord.)	FR [q2] [] [10 Credits]		x
WSBIM2273	Research internship, Part 2	Anabelle Decottignies (coord.)	FR [q2] [] [10 Credits]		x

**PROFESSIONAL FOCUS : HUMAN NUTRITION [30.0]**

- Mandatory
- ⊗ Optional
- △ Not offered in 2023-2024
- ⊖ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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:**

○ WSBIM2181	Molecular and cellular aspects of nutrition	Luc Bertrand Patrice Cani (coord.) Patrick Gilon Nicolas Lanthier Maria Veiga da Cunha	FR [q1] [30h] [4 Credits] 🌐	X	
○ WSBIM2134	Pathophysiology of nutrition	Patrice Cani (coord.) Nicolas Lanthier Audrey Loumaye	FR [q1] [30h] [4 Credits] 🌐	X	
○ WSBIM2136	Clinical nutrition	Patrice Cani (coord.)	FR [q1] [30h] [4 Credits] 🌐 > English-friendly	X	
○ WSBIM2137	Nutrition and environment: biological and toxicological aspects	Philippe de Timary Cathy Debier Nathalie Delzenne (coord.) Sandrine Ellero-Simatos (compensates Laure Bindels) Amandine Everard Françoise Smets	FR [q1] [30h] [4 Credits] 🌐 > English-friendly	X	
○ WSBIM2138	Innovation and research in nutrition	Laure Bindels Patrice Cani Nathalie Delzenne (coord.) Jean-Christophe Jonas Nicolas Lanthier Xavier Stéphanne	EN [q1] [30h] [4 Credits] 🌐	X	
○ WSBIM2238	Specialized nutrition ■	Dominique Hermans Françoise Smets Xavier Wittebole	FR [q2] [30h] [4 Credits] 🌐 > English-friendly		X
○ WSBIM2237	Nutrition and environment: societal aspects ■	Olivier De Schutter Nathalie Delzenne (coord.) Sophie Leclercq (compensates Laure Bindels)	FR [q2] [20h] [3 Credits] 🌐 > English-friendly		X
○ WSBIM2239	Nutrition and public health ■	Patrice Cani William D'Hoore Nathalie Delzenne (coord.) Stephan Van den Broecke	FR [q2] [20h] [3 Credits] 🌐 > English-friendly		X



**PROFESSIONAL FOCUS : TOXICOLOGY [30.0]**

- Mandatory
- ⊗ Optional
- △ Not offered in 2023-2024
- ⊖ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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 obligatoires**

○ WFARM2139	Pharmacokinetic, genomics and toxicology	Laure Bindels (coord.) Laure Elens Vincent Haufroid	FR [q1] [37.5h] [4 Credits] 🌐 > English-friendly	X	
○ WMDTR3211	Toxicologie industrielle	Vincent Haufroid	FR [q1] [15h] [2 Credits] 🌐	X	
○ WSBIM2143	Causes and risk factors for cancer	Paméla Baldin Nathalie Delzenne François Huaux Nick van Gastel (coord.)	FR [q1] [15h] [2 Credits] 🌐 > French-friendly	X	
○ WSBIM2159	Forensic approach: forensic pathology in toxicology	Grégory Schmit (coord.) Jessica Vanhaebost	FR [q1] [30h] [3 Credits] 🌐		X
○ WSBIM2246	Human toxicology	Caroline Dahlqvist Bénédicte Delire Laure Elens (coord.) Antoine Froidure Sophie Gohy Ludovic Gérard Marie-Cécile Nassogne Alexis Wérion	FR [q2] [52.5h] [6 Credits] 🌐	X	
○ WSBIM2135	Health and environment: chemical risks	Perrine Hoet	FR [q1] [15h+7.5h] [3 Credits] 🌐		X

**o Cours au choix**

En fonction de son parcours antérieur, l'étudiant choisit 10 crédits dans la liste ci-dessous ou tout autre cours avec l'accord de son promoteur et du responsable du programme.

**o Analyse instrumentale**

⊗ WSBIM1200	Biomedical instrumental analysis and radiation protection	Giulio Muccioli	FR [q1] [30h+30h] [4 Credits] 🌐 > English-friendly	X	
⊗ WFARM1312T	Instrumental analysis applied to pharmaceutical sciences - Instrumental analysis applied to pharmaceutical sciences (chromatographic technique and 10h of practical work)	Marie-France Herent Giulio Muccioli (coord.)	FR [q1] [20h+10h] [4 Credits] 🌐 > English-friendly	X	
⊗ WFARM2266	Analysis of biotechnology drugs	Laure Bindels Giulio Muccioli (coord.)	FR [q1] [22.5h] [4 Credits] 🌐 > English-friendly	X	

**o Biostatistiques**

En fonction de son projet et de la nécessité d'un cours dans ce domaine, l'étudiant peut choisir, en 1er bloc annuel : WSBIM2145 Modèles linéaires multi-prédicteurs appliqués aux sciences de la santé (3 crédits).

**PROFESSIONAL FOCUS : CLINICAL BIOMEDICAL SCIENCES [30.0]**

- Mandatory
- ⊗ Optional
- △ Not offered in 2023-2024
- ⊖ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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 Formation à une spécialité clinique (14 credits)**

La formation à une spécialité clinique se divise en 2 parties. Onze crédits dans le 1er bloc annuel et trois crédits dans le 2e bloc annuel. En 1er bloc annuel, l'étudiant choisit un secteur clinique (5 crédits) parmi ceux indiqués ci-dessous, le cours d'exploration correspondant (2 crédits) et il effectue un stage dans un laboratoire, une unité ou un centre de recherche clinique lié au secteur (4 crédits). En 2e bloc annuel, l'étudiant choisit le cours de complément dans le secteur qu'il a choisi dans le 1er bloc annuel (3 crédits).

**o Secteurs cliniques, cours d'exploration et cours de complément (10 credits)****⊗ Secteur cardio-vasculaire**

○ WMDS1325S	Système cardiovasculaire, partie 2 (partim SBIM)		(FR) [q2] [60h] [5 Credits] 🌐	X	
○ WINTR2291	Exploration fonctionnelle cardiaque	Joëlle Kefer	(FR) [q2] [15h] [2 Credits] 🌐	X	

**o Cours de complément, au choix (3 credits)**

L'étudiant choisit ce cours ou tout autre cours jugé équivalent par la commission de programme, en 2e bloc annuel.

⊗ WPEDI2140	Cardiologie pédiatrique	Catherine Barréa Karlien Carbonez Stéphane Moniotte Mieke Roggen (coord.)	(FR) [q2] [15h] [3 Credits] 🌐		X
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**⊗ Secteur respiratoire**

○ WMDS1324	Système respiratoire, partie 2	Eddy Bodart Emmanuel Coche Benoît Ghaye Delphine Hoton Eric Marchand Charles Pilette (coord.) Benoît Rondelet	(FR) [q2] [54h+10h] [5 Credits] 🌐		X
○ WINTR2292	Pulmonary function testing	Giuseppe Liistro (coord.) Eric Marchand	(FR) [q2] [15h] [2 Credits] 🌐		X

**o Cours de complément, au choix**

L'étudiant choisit un cours de complément parmi les cours suivants, en 2e bloc annuel.

⊗ WPNEU2110	Supplements of pneumology	Antoine Froidure Sophie Gohy Sebahat Ocak Charles Pilette (coord.)	(FR) [q2] [15h] [3 Credits] 🌐		X
⊗ WPNEU2120	Clinical allergy	Marie Baeck Christophe Goubau Valérie Hox (coord.) Charles Pilette Françoise Pirson Françoise Smets	(FR) [q1] [15h] [3 Credits] △ 🌐		X

**⊗ Secteur maladies infectieuses**

L'étudiant a les deux cours ci-dessous à son programme et choisit une autre activité de 2 crédits en accord avec son promoteur.

○ WMED2181	tropical diseases (complementary course)	Jean Cyr Yombi	(FR) [q2] [15h] [3 Credits] 🌐		X
○ WMDS2137	Secteur maladies infectieuses	Leïla Belkhir Etienne Sokal Dimitri Van der Linden Jean Cyr Yombi (coord.)	(FR) [q1] [48h] [5 Credits] 🌐		X

**⊗ Secteur digestif**

				Year	
				1	2
○ WRDGN2130	Complements of Medical Imaging	Emmanuel Coche Etienne Danse Dana Ioana Dumitriu (coord.) Idil Gunes Tatar Thomas Kirchgesner Isabelle Leconte Frédéric Lecouvet Renaud Menten	FR [q1] [15h] [2 Credits] 🌐	X	
○ WMDS2125T	Secteur digestif (partim SBIM : tube digestif)		FR [q1] [60h] [5 Credits] 🌐	X	
○ WMDS2125F	Secteur digestif (partim SBIM : foie, voies biliaires et pancréas)		FR [q1] [24h] [3 Credits] 🌐		X

⌘ Secteur psychiatrie

○ WMDS2155	Secteur psychiatrie	Emmanuel de Becker Philippe de Timary (coord.) Gérald Deschietere Vincent Dubois Denis Jacques Anne Wintgens Nicolas Zdanowicz	FR [q2] [48h] [5 Credits] 🌐	X	
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○ Cours d'exploration au choix

L'étudiant choisit un cours parmi les cours suivants, en 1er bloc annuel de master.

⌘ WPSYC2172	Techniques de psychiatrie biologique et imagerie en psychiatrie	Philippe de Timary	FR [q2] [15h] [2 Credits] 🌐	X	
⌘ WPSYC2190	Psychiatrie de l'adolescent et du jeune adulte	Nicolas Zdanowicz	FR [q2] [15h] [2 Credits] 🌐	X	
⌘ WPSYC2212	Assuétudes et troubles alimentaires	Philippe de Timary Denis Jacques (coord.)	FR [q2] [15h] [2 Credits] 🌐	X	
⌘ WPSYC2213	Troubles anxio-dépressifs	Denis Jacques	FR [q2] [15h] [2 Credits] 🌐	X	

○ Cours de complément, au choix

L'étudiant choisit un cours de complément parmi les cours suivants, en 2e bloc annuel.

⌘ WPSYC2151	Child psychiatry: psychopathology of the everyday life	Anne Wintgens	FR [q1] [15h] [3 Credits] 🌐		X
⌘ WPSYC2152	Child psychiatry : psychiatric and psychosomatic syndromes	Emmanuel de Becker	FR [q2] [15h] [3 Credits] 🌐		X

⌘ Secteur gynécologie obstétrique

○ WOBST2161	Compléments de gynécologie et d'infertilité	Marie-Madeleine Dolmans Pascale Jadoul Céline Pirard Jean-Luc Squifflet (coord.)	FR [q2] [15h] [3 Credits] 🌐		X
○ WOBST2162	Compléments d'andrologie et volet masculin de la fécondation in vitro	Christine Wyns	FR [q2] [15h] [2 Credits] 🌐	X	
○ WMDS2222S	Secteur gynécologie obstétrique (partim SBIM)		FR [q1] [60h] [5 Credits] 🌐	X	

⌘ Secteur endocrinologie

○ WMDS2123	Secteur endocrinologie	Orsalia Alexopoulou (coord.) Emmanuel Coche Michel Hermans Yves Horsmans Delphine Hoton Audrey Loumaye Philippe Lysy Vanessa Preumont	FR [q1] [60h] [5 Credits] 🌐	X	
○ WBICL2105	Apports de la biologie au diagnostic des principales maladies endocriniennes	Orsalia Alexopoulou Damien Gruson (coord.)	FR [q1] [22.5h] [2 Credits] 🌐	X	
○ WINTR2211	Compléments d'endocrinologie	Orsalia Alexopoulou Michel Hermans Philippe Lysy Vanessa Preumont (coord.)	FR [q2] [15h] [3 Credits] 🌐		X

⌘ Secteur hématologie-cancérologie

				Year	
				1	2
○ WMDS2223	Secteur oncologie	Martine Berlière Bénédicte Brichard Astrid De Cuyper François Duhoux Rachel Galot Xavier Geets Sophie Lucas Jean-Pascal Machiels (coord.) Bertrand Tombal Geneviève Van Ooteghem	PR [q1] [24h] [2 Credits]	x	
○ WMDS2221	Secteur hématologie	Marc André Bénédicte Brichard Véronique Deneys Cédric Hermans Catherine Lambert Nicole Straetmans (coord.) Marie-Christiane Vekemans	PR [q2] [48h] [3 Credits]	x	
○ WINTR2181	Compléments d'hémostase	Cédric Hermans (coord.) Catherine Lambert François Mullier	PR [q2] [15h] [2 Credits]	x	

**○ Cours de complément, au choix**

L'étudiant choisit un cours de complément parmi les cours suivants, en 2e bloc annuel.

⌘ WRDTH2120	Compléments de cancérologie	Jean-François Baurain (coord.) Lionel D'Hondt François Duhoux Xavier Geets Marc Van den Eynde Cedric Jacques van Marcke de Lummen	PR [q1] [17h] [3 Credits]		x
⌘ WINTR2182	Complements in Haematology	Carlos Graux Violaine Havelange Xavier Poire Anne Sonet Nicole Straetmans Eric Van Den Neste Marie-Christiane Vekemans (coord.)	PR [q2] [15h] [3 Credits]		x

**⌘ Secteur maladies nerveuses**

○ WMDS2100	Maladies neurologiques	Edward Fomekong Adrian Ivanoiu (coord.) Marie-Cécile Nassogne Vincent Van Pesch Yves Vandermeeren	PR [q2] [60h] [5 Credits]		x
○ WRDGN2120	Neuroradiology	Idil Gunes Tatar (coord.) Pietro Maggi	PR [q1] [15h] [2 Credits]		x

**○ Cours de complément, au choix**

L'étudiant choisit un cours de complément parmi les cours suivants, en 2e bloc annuel.

⌘ WNEPE2310	Pediatric neurology : complements	Maria-Roberta Cilio Sophie Ghariani Marie-Cécile Nassogne (coord.)	PR [q1] [15h] [3 Credits]		x
⌘ WNEUR2190	Clinical controversies in Neurology	Souraya El Sankari Susana Ferrao Santos Bernard Hanseeuw Adrian Ivanoiu (coord.) Vincent Van Pesch Yves Vandermeeren	PR [q2] [15h] [3 Credits]		x

**○ Stage en sciences biomédicales cliniques (4 credits)**

○ WSBIM2161	Stage en sciences biomédicales cliniques dans un service lié au secteur	Annie Robert (coord.)	PR [q2] [] [4 Credits]		x
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### o Démarche diagnostique (6 credits)

○ WMED2331	Stratégie d'utilisation de l'imagerie médicale et de la biologie clinique	Emmanuel Coche Dana Ioana Dumitriu Latifa Fellah Isabelle Leconte Frédéric Lecouvet Renaud Menten (coord.) Vassiliki Pasoglou Maximilien Thoma Jean Cyr Yombi	EB [q2] [16.5h] [3 Credits]		X
○ WESP2234	Clinical decision making	Andrea Penaloza-Baeza Annie Robert (coord.) Kiswendsida Clovis Sawadogo	EB [q1] [30h] [3 Credits]		X

### o Evaluation du risque dans les études cliniques (6 credits)

○ WFSP2218	Longitudinal analysis: linear, logistic and Poisson regression	Annie Robert	EB [q1] [20h+20h] [3 Credits]		X
○ WSBIM2145	Linear multi-predictor models applied to the health sciences	Annie Robert	EB [q1] [30h+30h] [3 Credits]		X

### o Autres enseignements obligatoires (4 credits)

○ WESP2232P	Genomic epidemiology	Catherine Legrand Alexandre Persu Annie Robert (coord.) Miikka Vakkula	EB [q2] [15h+15h] [2 Credits]		X
○ WFSP2228P	Systematic literature review, realist evaluation and meta-analysis	Annie Robert (coord.) Kiswendsida Clovis Sawadogo	EB [q2] [20h+10h] [2 Credits]		X

**OPTIONS [20.0]**

- > Option oncologie [ en-prog-2023-sbim2m-wsbim908o ]
- > Option neurosciences [ en-prog-2023-sbim2m-wsbim907o ]
- > Option pathophysiologie cellulaire et moléculaire [ en-prog-2023-sbim2m-wsbim904o ]
- > Option nutrition humaine [ en-prog-2023-sbim2m-wsbim903o ]
- > Option toxicologie [ en-prog-2023-sbim2m-wsbim905o ]
- > Option sciences biomédicales cliniques [ en-prog-2023-sbim2m-wsbim906o ]

**OPTION CANCÉROLOGIE [20.0]**

- Mandatory
- ⊗ Optional
- △ Not offered in 2023-2024
- ⊙ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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

**Content:**

○ WSBIM2141	Intercellular signaling and tumor biology	Stefan Constantinescu Anabelle Decottignies Olivier Feron Frédéric Lemaigre (coord.) Pierre Sonveaux	FR [q1] [30h] [3 Credits] 🌐 > English-friendly	X	
○ WSBIM2142	Tumor genetics and epigenetics	Charles De Smet Jean Baptiste Demoulin (coord.) Violaine Havelange	FR [q1] [20h] [2 Credits] 🌐 > English-friendly	X	
○ WSBIM2143	Causes and risk factors for cancer <i>L'étudiant de la finalité toxicologie doit choisir un autre cours pour une valeur de 2 crédits.</i>	Paméla Baldin Nathalie Delzenne François Huaux Nick van Gastel (coord.)	EN [q1] [15h] [2 Credits] 🌐 > French-friendly	X	
○ WSBIM2144	Cancer diagnosis and therapy	Jean-François Baurain Bernard Gallez Vincent Grégoire Violaine Havelange Frédéric Lecouvet Sophie Lucas (coord.) Etienne Marbaix	FR [q1] [30h] [3 Credits] 🌐 > English-friendly	X	
○ WSBIM2244	Special issues in cancerology ■	Jean-François Baurain Laure Bindels Charles De Smet (coord.) Jean Baptiste Demoulin Olivier Feron Bernard Gallez Etienne Marbaix Pierre Sonveaux Nick van Gastel	EN [q2] [50h] [5 Credits] 🌐		X
○ WSBIM2245	In-session seminar in biomedicine ■	Jean-François Baurain Laure Bindels Charles De Smet (coord.) Jean Baptiste Demoulin (coord.) Olivier Feron Bernard Gallez Etienne Marbaix Pierre Sonveaux Nick van Gastel	EN [q2] [50h] [5 Credits] 🌐		X

Year

1 2

WSBIM2229

Interdisciplinary program in translational medicine

*Ce cours est au choix pour l'étudiant. Ce programme interuniversitaire est financé par le Fond Baillet Latour. Plus de renseignements sur le [site](#)*

PR [q2] [50h] [5 Credits]

x

**OPTION NEUROSCIENCES [20.0]**

- Mandatory
- ⊗ Optional
- △ Not offered in 2023-2024
- ⊖ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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:**

○ WSBIM2154	<a href="#">Neuroanatomy and anatomo-functional imaging techniques</a>	Aleksandar Jankovski (coord.) John Lee	FR [q1] [30h] [4 Credits] 🌐	X	
○ WSBIM2155	<a href="#">Developmental neurobiology</a>	Fadel Tissir	FR [q1] [30h] [4 Credits] 🌐	X	
○ WSBIM2156	<a href="#">Animal and human electrophysiology project</a>	Philippe Gailly (coord.) Marcus Missal André Mouraux	FR [q1] [20h] [2 Credits] 🌐	X	
○ WSBIM2251	<a href="#">Neural networks and Deep Learning</a> ■	John Lee Marcus Missal (coord.)	FR [q2] [20h+10h] [3 Credits] 🌐		X
○ WSBIM2253	<a href="#">Advanced issues in cognitive neuroscience</a> ■	Julie Duque Valéry Legrain Marcus Missal (coord.)	EN [q2] [30h+10h] [4 Credits] 🌐		X
○ WSBIM2255	<a href="#">Seminar on neurological and psychiatric disease</a> ■	Philippe de Timary Riém El Tahry Bernard Hanseeuw Emmanuel Hermans (coord.) Marie-Cécile Nassogne	EN [q2] [30h] [3 Credits] 🌐		X
⊗ WSBIM2229	<a href="#">Interdisciplinary program in translational medicine</a> <i>Ce cours est au choix pour l'étudiant. Ce programme interuniversitaire est financé par le Fond Baillet Latour. Plus de renseignements sur le <a href="#">site</a></i>		FR [q2] [50h] [5 Credits] 🌐		X



**OPTION PATHOPHYSIOLOGIE CELLULAIRE ET MOLÉCULAIRE [20.0]**

- Mandatory
- ⊗ Optional
- △ Not offered in 2023-2024
- ⊖ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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:**

⊗ **Programme des étudiants inscrits en master 60**

L'étudiant suit les cours suivants :

○ WSBIM2215	Post-translational regulation of proteins	Luc Bertrand (coord.) Guido Bommer Jean-François Collet Jean Baptiste Demoulin	(FR) [q1] [20h] [2 Credits] 🌐 > English-friendly	X
○ WSBIM2141P	Intercellular signaling and tumor biology - Intercellular signaling and tumor biology (part)	Frédéric Lemaigre (coord.)	(FR) [q1] [20h] [2 Credits] 🌐 > English-friendly	X
○ WSBIM2184	Cellular and molecular pathophysiology of human diseases (Part 1)	Olivier Feron Jean-Christophe Jonas (coord.) Shakeel Kautbally Pascal Kienlen-Campard Charles Pilette	(EN) [q1] [30h] [3 Credits] 🌐	X
○ WSBIM2285	Biomedical project design, Pathophysiology ■	Frédéric Lemaigre	(EN) [q2] [30h] [4 Credits] 🌐	X
○ WSBIM2284	Cellular and molecular pathophysiology of human diseases (Part 2) ■	Christiani Andrade Amorim Luc Bertrand Cyril Corbet Chantal Dessy Laure Dumoutier Patrick Henriet Sandrine Horman Jean-Christophe Jonas (coord.)	(EN) [q2] [10h+20h] [3 Credits] 🌐	X
○ WSBIM2216	Inflammatory and autoimmune diseases and cancer: immunological aspects	Laure Dumoutier (coord.) Sophie Lucas Pierre van der Bruggen Nathalie Vigneron (compensates Jean-Christophe Renaud)	(FR) [q1] [20h+10h] [3 Credits] 🌐 > English-friendly	X
○ WFARM2149	Pharmaceutical approach in nutrition	Nathalie Delzenne	(FR) [q2] [30h+15h] [3 Credits] 🌐 > English-friendly	X

⊗ **Programme des étudiants inscrits en master 120**

o **Cours obligatoires**

○ WSBIM2285	Biomedical project design, Pathophysiology ■	Frédéric Lemaigre	(EN) [q2] [30h] [4 Credits] 🌐	X
○ WSBIM2284	Cellular and molecular pathophysiology of human diseases (Part 2) ■	Christiani Andrade Amorim Luc Bertrand Cyril Corbet Chantal Dessy Laure Dumoutier Patrick Henriet Sandrine Horman Jean-Christophe Jonas (coord.)	(EN) [q2] [10h+20h] [3 Credits] 🌐	X

				Year	
				1	2
○ WSBIM2218	Special issues in molecular and cellular pathophysiology	Christiani Andrade Amorim Luc Bertrand Cyril Corbet Chantal Dessy Laure Dumoutier Antoine Froidure Bernard Hanseeuw Patrick Henriët Sandrine Horman Jean-Christophe Jonas (coord.) Shakeel Kautbally	EN [q2] [30h] [3 Credits]		x

### ○ Cours au choix

L'étudiant choisit 10 crédits parmi les unités d'enseignement ci-dessous.

⌘ WSBIM2215	Post-translational regulation of proteins	Luc Bertrand (coord.) Guido Bommer Jean-François Collet Jean Baptiste Demoulin	EN [q1] [20h] [2 Credits] > English-friendly		x
⌘ WSBIM2141P	Intercellular signaling and tumor biology - Intercellular signaling and tumor biology (part)	Frédéric Lemaigre (coord.)	EN [q1] [20h] [2 Credits] > English-friendly		x
⌘ WSBIM2181	Molecular and cellular aspects of nutrition	Luc Bertrand Patrice Cani (coord.) Patrick Gilon Nicolas Lanthier Maria Veiga da Cunha	EN [q1] [30h] [4 Credits]		x
⌘ WSBIM2184	Cellular and molecular pathophysiology of human diseases (Part 1)	Olivier Feron Jean-Christophe Jonas (coord.) Shakeel Kautbally Pascal Kienlen-Campard Charles Pilette	EN [q1] [30h] [3 Credits]		x
⌘ WSBIM2216	Inflammatory and autoimmune diseases and cancer: immunological aspects	Laure Dumoutier (coord.) Sophie Lucas Pierre van der Bruggen Nathalie Vigneron (compensates Jean-Christophe Renaud)	EN [q1] [20h+10h] [3 Credits] > English-friendly		x
⌘ WSBIM2229	Interdisciplinary program in translational medicine Ce programme interuniversitaire est financé par le Fond Baillet Latour. Plus de renseignements sur le <a href="#">site</a>		EN [q2] [50h] [5 Credits]		x

**OPTION NUTRITION HUMAINE [20.0]**

- Mandatory
- ⊗ Optional
- △ Not offered in 2023-2024
- ⊖ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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 au choix**

Pour compléter l'option, l'étudiant choisit des cours pour un nombre de crédits permettant d'atteindre les minimum 20 crédits d'option. Pour les étudiants du master 120, si certains cours que choisit l'étudiant sont offerts dans une finalité spécialisée, le recouvrement, entre les cours de cette option et les cours d'une finalité spécialisée, ne peut excéder 6 crédits.

**o Cours au choix (10 crédits)**

L'étudiant choisit des cours pour atteindre un minimum de 10 crédits, parmi les cours proposés dans la liste ci-dessous, complétés de cours proposés dans tout autre programme d'autres facultés. Ce choix sera validé par la commission d'enseignement de la finalité.

⊗ WSBIM2230	Biochemistry of inborn errors of metabolism	Marie-Cécile Nassogne	FR [q1] [30h] [3 Credits] 🌐	X
⊗ WSBIM2290	Introduction to laboratory animal science	Jean-Paul Dehoux	FR [q1] [37h] [3 Credits] 🌐	X
⊗ WFARM2149	Pharmaceutical approach in nutrition	Nathalie Delzenne	FR [q2] [30h+15h] [3 Credits] 🌐 > English-friendly	X

**o Stage obligatoire au choix (10 crédits)**

L'étudiant choisit un stage parmi les suivants.

⊗ WSBIM2271	International research internship ■	Pascal Kienlen-Campard (coord.)	EN [q2] [] [10 Credits] 🌐	X
⊗ WSBIM2272	Work placement ■ Cette autre activité ne concerne pas les étudiants inscrits en master 60 (SBIM2M1).	Anabelle Decottignies (coord.)	EN [q2] [] [10 Credits] 🌐	X
⊗ WSBIM2273	Research internship, Part 2 ■	Anabelle Decottignies (coord.)	EN [q2] [] [10 Credits] 🌐	X

**OPTION TOXICOLOGIE [20.0]**

- Mandatory
- ⊗ Optional
- △ Not offered in 2023-2024
- ⊖ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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 obligatoires**

● WSBIM2290	Introduction to laboratory animal science	Jean-Paul Dehoux	(FR) [q1] [37h] [3 Credits] 🌐	X	
● WMDTR3201S	Facteurs de risques chimiques en milieu professionnel (partim SBIM) ■		(FR) [q1] [15h] [2 Credits] 🌐		X
● WMDTR3212	Aspects réglementaires en toxicologie ■	Violaine Verougstraete	(FR) [q2] [22.5h] [2 Credits] 🌐		X

**o Cours au choix**

L'étudiant choisit minimum 3 crédits parmi les cours suivants.

⊗ WFARM1300M	Pharmacokinetics and metabolism of xenobiotics - Pharmacokinetics and metabolism of xenobiotics (metabolism part 15h)	Nathalie Delzenne Laure Elens	(FR) [q1] [10h+20h] [2 Credits] 🌐 > English-friendly		X
⊗ WFARM1303	Clinical Chemistry	Joseph Dewulf Catherine Fillee Damien Gruson Vincent Haufroid (coord.) Madeleine Rousseaux	(FR) [q2] [20h] [2 Credits] 🌐		X
⊗ WFARM2180	Organotoxicity : molecular, cellular and functional aspects	Olivier Feron (coord.) Philippe Lysy Xavier Wittebole	(FR) [q2] [30h+15h] [3 Credits] 🌐 > English-friendly		X
⊗ WFARM2514	Drug dependence and addiction	Lidvine Boland (compensates Laure Bindels) Philippe de Timary Sophie Gohy Vincent Haufroid Emmanuel Hermans (coord.) Denis Jacques Didier Lambert Peter Starkel Miikka Vikkula Xavier Wittebole	(FR) [q2] [22.5h] [3 Credits] 🌐		X

**o Stage obligatoire au choix (10 credits)**

L'étudiant choisit un stage parmi les 2 suivants.

⊗ WSBIM2272	Work placement ■ Cette autre activité ne concerne pas les étudiants inscrits en master 60 (SBIM2M1).	Anabelle Decottignies (coord.)	(EN) [q2] [] [10 Credits] 🌐		X
⊗ WSBIM2273	Research internship, Part 2 ■	Anabelle Decottignies (coord.)	(EN) [q2] [] [10 Credits] 🌐		X

**OPTION SCIENCES BIOMÉDICALES CLINIQUES [20.0]**

- Mandatory
- ⊗ Optional
- △ Not offered in 2023-2024
- ⊖ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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 Métabolisme et pathologies particulières**

○ WSBIM2246P	<b>Human toxicology</b> <i>L'étudiant de la finalité toxicologie doit choisir un autre cours pour une valeur de 3 crédits.</i>		(FR) [q2] [30h] [4 Credits] 🌐		x
○ WSBIM2230	<b>Biochemistry of inborn errors of metabolism</b>	Marie-Cécile Nassogne	(FR) [q1] [30h] [3 Credits] 🌐		x

**o Pathologie humaine**

Students from the master 60 who choose this option in Clinical biomedical sciences will be offered two other courses of human pathology in agreement with their program manager

○ WMDS1330T	<b>Pathologie générale - (partim théorie)</b>		(FR) [q2] [36h] [3 Credits] 🌐		x
○ WFARM2104	<b>GOOD MANUFACTURING AND QUALITY</b>	Joëlle Leclercq (coord.) Thierry Pronce	(FR) [q2] [30h+15h] [3 Credits] 🌐 > English-friendly		x

**o Méthodes pour les études cliniques**

L'étudiant inscrit au master 60 (SBIM2M1) doit choisir un autre cours que LSTAT2330 dans le programme du master pour une valeur de 3 crédits minimum.

○ LSTAT2330	<b>Statistics in clinical trials.</b>	Catherine Legrand Annie Robert	(FR) [q2] [22.5h+7.5h] [3 Credits] 🌐		x
○ WESP2123	<b>Principles of clinical trials</b>	Diego Castanares Zapatero Philippe Lysy Annie Robert (coord.) Françoise Smets	(FR) [q1] [20h+10h] [4 Credits] 🌐		x

**⊗ Autre activité**

Selon son projet, l'étudiant peut remplacer des activités obligatoires de l'option par un stage en entreprise. Son programme d'année sera adapté en conséquence. Cette autre activité ne concerne pas les étudiants inscrits en master 60 (SBIM2M1).

⊗ WSBIM2272	<b>Work placement</b> ■	Anabelle Decottignies (coord.)	(FR) [q2] [] [10 Credits] 🌐		x
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## Supplementary classes

**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 2023-2024
- ⊙ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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...)

### ○ Finalités

⊗ -

L'étudiant souhaitant intégrer la finalité approfondie sera invité à suivre le module complémentaire constitué des unités d'enseignement suivantes:

#### ○ Cours de base

○ WFARM1221S	Biochemistry and molecular biology	Nathalie Delzenne (coord.)	FR [q1] [50h+10h] [6 Credits] 🌐
○ WFARM1213	Human physiology and basics of physiopathology	Olivier Feron (coord.) Emmanuel Hermans Jean-Christophe Jonas (compensates Philippe Lysy)	FR [q2] [60h] [6 Credits] 🌐 > English-friendly
○ WMDS1230	Biologie cellulaire médicale et expérimentale	Stefan Constantinescu (coord.) Christophe Pierreux Donatienne Tyteca	FR [q1] [30h+20h] [4 Credits] 🌐
○ LANGL2454	English for biomedical students	Nicholas Gibbs Nevin Serbest (coord.)	EN [q2] [30h] [3 Credits] 🌐
○ WSBIM1334	general immunology	Isabelle Leclercq Julian Leprince Sophie Lucas (coord.) Benoit Van den Eynde Nathalie Vigneron (compensates Jean-Christophe Renault)	FR [q1] [65h] [6 Credits] 🌐 > English-friendly
○ WMD1006	Cytology and general histology	Christophe Pierreux	FR [q2] [10h+40h] [5 Credits] 🌐
○ WFARM1282	General microbiology	Thomas Michiels	FR [q1] [20h+15h] [3 Credits] 🌐
○ WSBIM1226	Molecular biology (including epigenetics) and tutorials	Charles De Smet Frédéric Lemaigre Thomas Michiels (coord.)	FR [q1] [30h+10h] [3 Credits] 🌐
○ WSBIM1227	Molecular biology and integrated biochemistry	Luc Bertrand	FR [q2] [20h+30h] [3 Credits] 🌐
○ WSBIM1320	Introduction to experimental approaches in cellular and molecular biology	Luc Bertrand Anne des Rieux Sandrine Horman Donatienne Tyteca (coord.)	FR [q2] [30h] [3 Credits] 🌐
○ WMDS1237	Pharmacologie générale	Laure Elens Vincent Haufroid Emmanuel Hermans (coord.)	FR [q1] [25h] [2 Credits] 🌐
○ WSBIM1302	Molecular Virology	Thomas Michiels	FR [q1] [25h] [3 Credits] 🌐

○ WSBIM1382	Genetics and applied biotechnology	Luc Bertrand (coord.) Laure Dumoutier Géraldine Laloux Nisha Limaye	FR [q1] [30h] [3 Credits] > English-friendly
○ WSBIM1211	Methodology of cell and molecular biology	Guido Bommer Jean-François Collet (coord.) Stefan Constantinescu Donatienne Tyteca	FR [q2] [22.5h] [3 Credits]
○ WFARM1305	Elements of General Pathology	Mélanie Dechamps Olivier Feron (coord.)	FR [q2] [30h] [3 Credits] > English-friendly
○ WFARM1247	Statistical data processing	Eugen Pircalabelu	FR [q2] [15h+15h] [3 Credits]

✂ -

L'étudiant souhaitant intégrer la finalité spécialisée en nutrition humaine sera invité à suivre le module complémentaire constitué des unités d'enseignement suivantes:

#### ○ Cours de base

○ WFARM1221S	Biochemistry and molecular biology	Nathalie Delzenne (coord.)	FR [q1] [50h+10h] [6 Credits]
○ WFARM1213	Human physiology and basics of physiopathology	Olivier Feron (coord.) Emmanuel Hermans Jean-Christophe Jonas (compensates Philippe Lysy)	FR [q2] [60h] [6 Credits] > English-friendly
○ WMDS1230	Biologie cellulaire médicale et expérimentale	Stefan Constantinescu (coord.) Christophe Pierreux Donatienne Tyteca	FR [q1] [30h+20h] [4 Credits]
○ WFARM1247	Statistical data processing	Eugen Pircalabelu	FR [q2] [15h+15h] [3 Credits]
○ LANGL2454	English for biomedical students	Nicholas Gibbs Nevin Serbest (coord.)	EN [q2] [30h] [3 Credits]
○ WSBIM1334	general immunology	Isabelle Leclercq Julian Leprince Sophie Lucas (coord.) Benoit Van den Eynde Nathalie Vigneron (compensates Jean- Christophe Renauld)	FR [q1] [65h] [6 Credits] > English-friendly
○ WMD1006	Cytology and general histology	Christophe Pierreux	FR [q2] [10h+40h] [5 Credits]
○ WFARM1282	General microbiology	Thomas Michiels	FR [q1] [20h+15h] [3 Credits]
○ WSBIM1226	Molecular biology (including epigenetics) and tutorials	Charles De Smet Frédéric Lemaigre Thomas Michiels (coord.)	FR [q1] [30h+10h] [3 Credits]
○ WSBIM1227	Molecular biology and integrated biochemistry	Luc Bertrand	FR [q2] [20h+30h] [3 Credits]
○ WSBIM1320	Introduction to experimental approaches in cellular and molecular biology	Luc Bertrand Anne des Rieux Sandrine Horman Donatienne Tyteca (coord.)	FR [q2] [30h] [3 Credits]
○ WMDS1237	Pharmacologie générale	Laure Elens Vincent Haufroid Emmanuel Hermans (coord.)	FR [q1] [25h] [2 Credits]
○ WSBIM1305	Introduction to human nutrition	Véronique Beauloye Patrice Cani Nathalie Delzenne (coord.) Françoise Smets	FR [q1] [30h] [3 Credits]
○ WFARM1305	Elements of General Pathology	Mélanie Dechamps Olivier Feron (coord.)	FR [q2] [30h] [3 Credits] > English-friendly

#### ○ Cours au choix

L'étudiant est invité à choisir 2 unités d'enseignement parmi la liste proposée ci-dessous

WESP2234	Clinical decision making	Andrea Penalzo-Baeza Annie Robert (coord.) Kiswendsida Clovis Sawadogo	FR [q1] [30h] [3 Credits]
WESP2123	Principles of clinical trials	Diego Castanares Zapatero Philippe Lysy Annie Robert (coord.) Françoise Smets	FR [q1] [20h+10h] [4 Credits]
WSBIM1211	Methodolgy of cell and molecular biology	Guido Bommer Jean-François Collet (coord.) Stefan Constantinescu Donatienne Tyteca	FR [q2] [22.5h] [3 Credits]
WSBIM1323	Systemic neuroscience	Philippe Gailly Pascal Kienlen-Campard Marcus Missal (coord.)	FR [q1] [30h] [3 Credits]
WSBIM1302	Molecular Virology	Thomas Michiels	FR [q1] [25h] [3 Credits]
WSBIM1382	Genetics and applied biotechnology	Luc Bertrand (coord.) Laure Dumoutier Géraldine Laloux Nisha Limaye	FR [q1] [30h] [3 Credits] > English-friendly
WSBIM1205	Introduction to toxicology	Lidvine Boland Nathalie Delzenne Vincent Haufroid Perrine Hoet (coord.) François Huaux	FR [q2] [30h] [3 Credits]

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### O Cours de base

WFARM1221S	Biochemistry and molecular biology	Nathalie Delzenne (coord.)	FR [q1] [50h+10h] [6 Credits]
WFARM1213	Human physiology and basics of physiopathology	Olivier Feron (coord.) Emmanuel Hermans Jean-Christophe Jonas (compensates Philippe Lysy)	FR [q2] [60h] [6 Credits] > English-friendly
WMDS1230	Biologie cellulaire médicale et expérimentale	Stefan Constantinescu (coord.) Christophe Pierreux Donatienne Tyteca	FR [q1] [30h+20h] [4 Credits]
WFARM1247	Statistical data processing	Eugen Pircalabelu	FR [q2] [15h+15h] [3 Credits]
LANGL2454	English for biomedical students	Nicholas Gibbs Nevin Serbest (coord.)	EN [q2] [30h] [3 Credits]
WSBIM1334	general immunology	Isabelle Leclercq Julian Leprince Sophie Lucas (coord.) Benoit Van den Eynde Nathalie Vigneron (compensates Jean- Christophe Renauld)	FR [q1] [65h] [6 Credits] > English-friendly
WMD1006	Cytology and general histology	Christophe Pierreux	FR [q2] [10h+40h] [5 Credits]
WFARM1282	General microbiology	Thomas Michiels	FR [q1] [20h+15h] [3 Credits]
WSBIM1226	Molecular biology (including epigenetics) and tutorials	Charles De Smet Frédéric Lemaigre Thomas Michiels (coord.)	FR [q1] [30h+10h] [3 Credits]
WSBIM1227	Molecular biology and integrated biochemistry	Luc Bertrand	FR [q2] [20h+30h] [3 Credits]
WSBIM1320	Introduction to experimental approaches in cellular and molecular biology	Luc Bertrand Anne des Rieux Sandrine Horman Donatienne Tyteca (coord.)	FR [q2] [30h] [3 Credits]
WMDS1237	Pharmacologie générale	Laure Elens Vincent Haufroid Emmanuel Hermans (coord.)	FR [q1] [25h] [2 Credits]



WFARM1305	Elements of General Pathology	Mélanie Dechamps Olivier Feron (coord.)	FR [q2] [30h] [3 Credits] > English-friendly
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### ○ Cours au choix

L'étudiant est invité à choisir 3 unités d'enseignement parmi la liste proposée ci-dessous

WSBIM1302	Molecular Virology	Thomas Michiels	FR [q1] [25h] [3 Credits]
WSBIM1382	Genetics and applied biotechnology	Luc Bertrand (coord.) Laure Dumoutier Géraldine Laloux Nisha Limaye	FR [q1] [30h] [3 Credits] > English-friendly
WSBIM1211	Methodology of cell and molecular biology	Guido Bommer Jean-François Collet (coord.) Stefan Constantinescu Donatienne Tyteca	FR [q2] [22.5h] [3 Credits]
WSBIM1323	Systemic neuroscience	Philippe Gailly Pascal Kienlen-Campard Marcus Missal (coord.)	FR [q1] [30h] [3 Credits]
WSBIM1305	Introduction to human nutrition	Véronique Beauloye Patrice Cani Nathalie Delzenne (coord.) Françoise Smets	FR [q1] [30h] [3 Credits]
WFARM1202	Eléments d'épidémiologie appliquée aux sciences pharmaceutiques et biomédicales	Séverine Henrard	FR [q2] [20h] [3 Credits] > English-friendly
WSBIM1205	Introduction to toxicology	Lidvine Boland Nathalie Delzenne Vincent Haufroid Perrine Hoet (coord.) François Huaux	FR [q2] [30h] [3 Credits]

### ⊗ Bloc complémentaire de la finalité toxicologie humaine

L'étudiant souhaitant intégrer la finalité spécialisée en toxicologie humaine sera invité à suivre le module complémentaire constitué des unités d'enseignement suivantes

### ○ Cours de base

WFARM1221S	Biochemistry and molecular biology	Nathalie Delzenne (coord.)	FR [q1] [50h+10h] [6 Credits]
WFARM1213	Human physiology and basics of physiopathology	Olivier Feron (coord.) Emmanuel Hermans Jean-Christophe Jonas (compensates Philippe Lysy)	FR [q2] [60h] [6 Credits] > English-friendly
WMDS1230	Biologie cellulaire médicale et expérimentale	Stefan Constantinescu (coord.) Christophe Pierreux Donatienne Tyteca	FR [q1] [30h+20h] [4 Credits]
WFARM1247	Statistical data processing	Eugen Pircalabelu	FR [q2] [15h+15h] [3 Credits]
LANGL2454	English for biomedical students	Nicholas Gibbs Nevin Serbest (coord.)	EN [q2] [30h] [3 Credits]
WSBIM1334	general immunology	Isabelle Leclercq Julian Leprince Sophie Lucas (coord.) Benoit Van den Eynde Nathalie Vigneron (compensates Jean- Christophe Renauld)	FR [q1] [65h] [6 Credits] > English-friendly
WMD1006	Cytology and general histology	Christophe Pierreux	FR [q2] [10h+40h] [5 Credits]
WFARM1282	General microbiology	Thomas Michiels	FR [q1] [20h+15h] [3 Credits]
WSBIM1226	Molecular biology (including epigenetics) and tutorials	Charles De Smet Frédéric Lemaigre Thomas Michiels (coord.)	FR [q1] [30h+10h] [3 Credits]
WSBIM1227	Molecular biology and integrated biochemistry	Luc Bertrand	FR [q2] [20h+30h] [3 Credits]

○ WSBIM1320	Introduction to experimental approaches in cellular and molecular biology	Luc Bertrand Anne des Rieux Sandrine Horman Donatienne Tyteca (coord.)	FR [q2] [30h] [3 Credits] 🌐
○ WMDS1237	Pharmacologie générale	Laure Elens Vincent Haufroid Emmanuel Hermans (coord.)	FR [q1] [25h] [2 Credits] 🌐
○ WSBIM1205	Introduction to toxicology	Lidvine Boland Nathalie Delzenne Vincent Haufroid Perrine Hoet (coord.) François Huaux	FR [q2] [30h] [3 Credits] 🌐
○ WFBIM1305	Elements of General Pathology	Mélanie Dechamps Olivier Feron (coord.)	FR [q2] [30h] [3 Credits] 🌐 > English-friendly
○ WSBIM1302	Molecular Virology	Thomas Michiels	FR [q1] [25h] [3 Credits] 🌐

### ○ Cours au choix

L'étudiant est invité à choisir 1 unité d'enseignement parmi la liste proposée ci-dessous.

⌘ WESP2234	Clinical decision making	Andrea Penaloza-Baeza Annie Robert (coord.) Kiswendsida Clovis Sawadogo	FR [q1] [30h] [3 Credits] 🌐
⌘ WSBIM1211	Methodology of cell and molecular biology	Guido Bommer Jean-François Collet (coord.) Stefan Constantinescu Donatienne Tyteca	FR [q2] [22.5h] [3 Credits] 🌐
⌘ WSBIM1323	Systemic neuroscience	Philippe Gailly Pascal Kienlen-Campard Marcus Missal (coord.)	FR [q1] [30h] [3 Credits] 🌐
⌘ WSBIM1382	Genetics and applied biotechnology	Luc Bertrand (coord.) Laure Dumoutier Géraldine Laloux Nisha Limaye	FR [q1] [30h] [3 Credits] 🌐 > English-friendly
⌘ WSBIM1305	Introduction to human nutrition	Véronique Beauloye Patrice Cani Nathalie Delzenne (coord.) Françoise Smets	FR [q1] [30h] [3 Credits] 🌐

## 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

- WMDTR3201S** "Facteurs de risques chimiques en milieu professionnel (partim SBIM)" has prerequisite(s) WMDTR3211
- WMDTR3211 - Toxicologie industrielle
- WMDTR3212** "Aspects réglementaires en toxicologie" has prerequisite(s) WMDTR3211
- WMDTR3211 - Toxicologie industrielle
- WSBIM2237** "Nutrition et environnement : aspect sociétal" has prerequisite(s) WSBIM2181 ET WSBIM2134 ET WSBIM2136 ET WSBIM2137 ET WSBIM2138
- WSBIM2181 - Molecular and cellular aspects of nutrition
  - WSBIM2134 - Pathophysiology of nutrition
  - WSBIM2136 - Clinical nutrition
  - WSBIM2137 - Nutrition and environment: biological and toxicological aspects
  - WSBIM2138 - Innovation and research in nutrition
- WSBIM2238** "Nutrition spécialisée" has prerequisite(s) WSBIM2181 ET WSBIM2134 ET WSBIM2136 ET WSBIM2137 ET WSBIM2138
- WSBIM2181 - Molecular and cellular aspects of nutrition
  - WSBIM2134 - Pathophysiology of nutrition
  - WSBIM2136 - Clinical nutrition
  - WSBIM2137 - Nutrition and environment: biological and toxicological aspects
  - WSBIM2138 - Innovation and research in nutrition
- WSBIM2239** "Nutrition et santé publique" has prerequisite(s) WSBIM2181 ET WSBIM2134 ET WSBIM2136 ET WSBIM2137 ET WSBIM2138
- WSBIM2181 - Molecular and cellular aspects of nutrition
  - WSBIM2134 - Pathophysiology of nutrition
  - WSBIM2136 - Clinical nutrition
  - WSBIM2137 - Nutrition and environment: biological and toxicological aspects
  - WSBIM2138 - Innovation and research in nutrition
- WSBIM2244** "Special issues in cancerology" has prerequisite(s) WSBIM2280 ET (WSBIM2112 OU WSBIM2151) ET WSBIM2141 ET WSBIM2142 ET WSBIM2143 ET WSBIM2144
- WSBIM2280 - Scientific communication workshop
  - WSBIM2112 - Cell and molecular biology: experimental systems
  - WSBIM2151 - Experimental approaches in neuroscience
  - WSBIM2141 - Intercellular signaling and tumor biology
  - WSBIM2142 - Tumor genetics and epigenetics
  - WSBIM2143 - Causes and risk factors for cancer
  - WSBIM2144 - Cancer diagnosis and therapy
- WSBIM2245** "In-session seminar in biomedicine" has prerequisite(s) WSBIM2280 ET (WSBIM2112 OU WSBIM2151) ET WSBIM2141 ET WSBIM2142 ET WSBIM2143 ET WSBIM2144
- WSBIM2280 - Scientific communication workshop
  - WSBIM2112 - Cell and molecular biology: experimental systems
  - WSBIM2151 - Experimental approaches in neuroscience
  - WSBIM2141 - Intercellular signaling and tumor biology
  - WSBIM2142 - Tumor genetics and epigenetics
  - WSBIM2143 - Causes and risk factors for cancer
  - WSBIM2144 - Cancer diagnosis and therapy
- WSBIM2251** "Neural networks and Deep Learning" has prerequisite(s) WSBIM2280 ET (WSBIM2112 OU WSBIM2151) ET WSBIM2154 ET WSBIM2155 ET WSBIM2156
- WSBIM2280 - Scientific communication workshop
  - WSBIM2112 - Cell and molecular biology: experimental systems
  - WSBIM2151 - Experimental approaches in neuroscience
  - WSBIM2154 - Neuroanatomy and anatomo-functional imaging techniques

- WSBIM2155 - [Developmental neurobiology](#)
  - WSBIM2156 - [Animal and human electrophysiology project](#)
- WSBIM2253** "[Advanced issues in cognitive neuroscience](#)" has prerequisite(s) WSBIM2280 ET (WSBIM2112 OU WSBIM2151) ET WSBIM2154 ET WSBIM2155 ET WSBIM2156
- WSBIM2280 - [Scientific communication workshop](#)
  - WSBIM2112 - [Cell and molecular biology: experimental systems](#)
  - WSBIM2151 - [Experimental approaches in neuroscience](#)
  - WSBIM2154 - [Neuroanatomy and anatomo-functional imaging techniques](#)
  - WSBIM2155 - [Developmental neurobiology](#)
  - WSBIM2156 - [Animal and human electrophysiology project](#)
- WSBIM2255** "[Seminar on neurological and psychiatric disease](#)" has prerequisite(s) WSBIM2280 ET (WSBIM2112 OU WSBIM2151) ET WSBIM2154 ET WSBIM2155 ET WSBIM2156
- WSBIM2280 - [Scientific communication workshop](#)
  - WSBIM2112 - [Cell and molecular biology: experimental systems](#)
  - WSBIM2151 - [Experimental approaches in neuroscience](#)
  - WSBIM2154 - [Neuroanatomy and anatomo-functional imaging techniques](#)
  - WSBIM2155 - [Developmental neurobiology](#)
  - WSBIM2156 - [Animal and human electrophysiology project](#)
- WSBIM2271** "[International research internship](#)" has prerequisite(s) WSBIM2198 ET WSBIM2197
- WSBIM2198 - [Pre-thesis in biomedical sciences](#)
  - WSBIM2197 - [Laboratory internship \(part 1\)](#)
- WSBIM2272** "[Work placement](#)" has prerequisite(s) WSBIM2198 ET WSBIM2197
- WSBIM2198 - [Pre-thesis in biomedical sciences](#)
  - WSBIM2197 - [Laboratory internship \(part 1\)](#)
- WSBIM2273** "[Research internship, Part 2](#)" has prerequisite(s) WSBIM2198 ET WSBIM2197
- WSBIM2198 - [Pre-thesis in biomedical sciences](#)
  - WSBIM2197 - [Laboratory internship \(part 1\)](#)
- WSBIM2284** "[Cellular and molecular pathophysiology of human diseases \(Part 2\)](#)" has prerequisite(s) WSBIM2280 ET (WSBIM2112 OU WSBIM2151)
- WSBIM2280 - [Scientific communication workshop](#)
  - WSBIM2112 - [Cell and molecular biology: experimental systems](#)
  - WSBIM2151 - [Experimental approaches in neuroscience](#)
- WSBIM2285** "[Biomedical project design, Pathophysiology](#)" has prerequisite(s) WSBIM2280 ET (WSBIM2112 OU WSBIM2151)
- WSBIM2280 - [Scientific communication workshop](#)
  - WSBIM2112 - [Cell and molecular biology: experimental systems](#)
  - WSBIM2151 - [Experimental approaches in neuroscience](#)
- WSBIM2297** "[Stage en laboratoire \(2e partie\)](#)" has prerequisite(s) WSBIM2197
- WSBIM2197 - [Laboratory internship \(part 1\)](#)
- WSBIM2298** "[Mémoire expérimental en sciences biomédicales](#)" has prerequisite(s) WSBIM2198
- WSBIM2198 - [Pre-thesis in biomedical sciences](#)

## The programme's courses and learning outcomes

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

## SBIM2M - 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](#)
- > [Access based on validation of professional experience](#)
- > [Access based on application](#)
- > [Admission and Enrolment Procedures for general registration](#)

## Specific access requirements

Les candidats étudiants non francophones (UE et hors UE) devront apporter la preuve, dans leur demande d'admission, d'une maîtrise suffisante de la langue française (niveau B1 du [Cadre européen commun de référence](#) , pages 24 à 29)

## University Bachelors

Diploma	Special Requirements	Access	Remarks
<b>UCLouvain Bachelors</b>			
<a href="#">Bachelor in Biomedicine</a>		Direct access	
<a href="#">Bachelor in Dentistry</a> <a href="#">Bachelor in Medicine</a> <a href="#">Bachelor in Pharmacy</a>		Access with additional training	<a href="#">Additional requirements for admission</a> de max 15 crédits intégrés dans le programme du master
<a href="#">Bachelor in Veterinary Medicine</a> <a href="#">Bachelor in Chemistry</a> <a href="#">Bachelor in Physics</a> <a href="#">Bachelor in Bioengineering</a>		Access based on application	<a href="#">Additional requirements for admission</a> de max 60 crédits intégrés dans le programme du master
<b>Others Bachelors of the French speaking Community of Belgium</b>			
bachelier en sciences biomédicales		Direct access	
bachelier en médecine sciences pharmaceutiques sciences dentaires		Access with additional training	<a href="#">Additional requirements for admission</a> de max 15 crédits intégrés dans le programme du master
bachelier en médecine vétérinaire bachelier en sciences chimiques bachelier en sciences de l'ingénieur orientation bioingénieur bachelier en sciences physiques		Access based on application	<a href="#">Additional requirements for admission</a> de max 60 crédits intégrés dans le programme du master
<b>Bachelors of the Dutch speaking Community of Belgium</b>			
bachelier en sciences biomédicales		Direct access	
bachelier en médecine sciences pharmaceutiques sciences dentaires		Access with additional training	<a href="#">Additional requirements for admission</a> de max 15 crédits

bachelier en médecine vétérinaire bachelier en sciences chimiques bachelier en sciences de l'ingénieur orientation bioingénieur bachelier en sciences physiques	Access based on application	intégrés dans le programme du master  <a href="#">Additional requirements for admission</a> de max 60 crédits intégrés dans le programme du master
<b>Foreign Bachelors</b>		
diplôme universitaire jugé équivalent dans des domaines autres que ceux repris ci-dessus ou ayant acquis une expérience pouvant être valorisée dans le domaine des sciences biomédicales	Access based on application	Accès en bachelier. Programme établi par le jury d'admission sur base du parcours antérieur de minimum 60 crédits.

## Non university Bachelors

> Find out more about [links](#) to the university

Diploma	Access	Remarks
BA - sage-femme - crédits supplémentaires entre 15 et 30 BA - technologue de laboratoire médical - crédits supplémentaires entre 30 et 60 BA - technologue en imagerie médicale - crédits supplémentaires entre 30 et 60 BA de spécialisation en anesthésie - crédits supplémentaires entre 15 et 30 BA de spécialisation en soins intensifs et aide médicale urgente - crédits supplémentaires entre 15 et 30 BA en chimie, orientation biochimie - crédits supplémentaires entre 30 et 60 BA en chimie, orientation biotechnologie - crédits supplémentaires entre 30 et 60 BA en chimie, orientation chimie appliquée - crédits supplémentaires entre 30 et 60 BA en chimie, orientation environnement - crédits supplémentaires entre 30 et 60 BA en diététique - crédits supplémentaires entre 30 et 60 BA en ergothérapie - crédits supplémentaires entre 30 et 60 BA en soins infirmiers - crédits supplémentaires entre 30 et 60 BA en soins infirmiers pour titulaires d'un brevet d'infirmier hospitalier - crédits supplémentaires entre 30 et 60 Bachelier: infirmier responsable de soins généraux - crédits supplémentaires entre 15 et 30	Les enseignements supplémentaires éventuels peuvent être consultés dans <a href="#">le module complémentaire</a> .	Type court

## Holders of a 2nd cycle University degree

Diploma	Special Requirements	Access	Remarks
<b>"Licenciés"</b>			
		Direct access	
<b>Masters</b>			
<a href="#">Master [120] in Biochemistry and Molecular and Cell Biology</a>		Access with additional training	Type long
<a href="#">Master [120] in Pharmacy</a>		Access based on application	Type long

## 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



## Teaching method

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Throughout the Master's programme, students encounter a variety of complementary teaching methods: classroom lectures, tutoring, laboratory work and immersion in a professional environment.

The course programme is designed to enable an excellent level of training in research through experimentation.

The theory teaching, monitoring in the laboratory and supervision of the thesis are performed by research professionals.

Professional focus in human nutrition: the programme is organised so as to leave a period of time almost exclusively devoted to the production of a laboratory experiment dissertation, which is essential to enable the learner to become an integral part of a team and to allow adequate monitoring by the supervisors.

The final stage of the programme includes an introductory work placement, intended to enable the students to face the world of employment that they will have to deal with on completion of the training; the various courses will also provide the opportunity for contact with key representatives of the world of employment during the training.

The critical mindset will be developed in the field, which is necessary in view of the amount of misleading information found on the Internet or through inadequate communication networks in the field of nutrition and health; this competence will be acquired by being faced with real-life cases to be dealt with in several courses.

## 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 theory course will be evaluated by a written or oral exam.

A significant part of the Master's programme is devoted to experimental work that is evaluated by a work placement in a laboratory and the production of a dissertation that must be defended before a panel of experts.

To obtain a grade average, the scores obtained by the teaching units are weighted by their respective credits.

## Mobility and/or Internationalisation outlook

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Il y a une ouverture possible du master 120 à des étudiants étrangers sur base des pré-requis examinés par la commission d'enseignement.

L'école des Sciences biomédicales met en place un réseau d'institutions partenaires permettant des échanges d'étudiants au cours de la deuxième année du Master 120.

Lien à consulter : <https://uclouvain.be/313366.html>

## Possible trainings at the end of the programme

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Masters complémentaires accessibles : en biotechnologie et biologie appliquée.

Formations doctorales accessibles : domaine des sciences biomédicales et pharmaceutiques et domaine des sciences médicales.

## Contacts

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### Curriculum Management



Entity

Structure entity	SSS/FASB/SBIM
Denomination	(SBIM)
Faculty	Faculty of Pharmacy and Biomedical Sciences (FASB)
Sector	Health Sciences (SSS)
Acronym	SBIM
Postal address	Avenue Mounier 73 - bte B1.73.04 1200 Woluwe-Saint-Lambert Tel: <a href="tel:+3227647362">+32 (0)2 764 73 62</a> - Fax: <a href="tel:+3227647363">+32 (0)2 764 73 63</a>

Academic supervisor: [Charles De Smet](#)

Jury

- Président de jury: [Charles De Smet](#)
- Secrétaire du jury: [Laurent Gatto](#)

Useful Contact(s)

- Conseiller aux études: [Laure Dumoutier](#)
- Secrétaire de l'école: [Guillaume Arnould](#)
- Président de la commission d'enseignement de l'école de sciences biomédicales: [Charles De Smet](#)
- Responsable administrative de la faculté de pharmacie et de sciences biomédicales: [Johanne Garny](#)

