UCLouvain

SBIM2M1

2024 - 2025

Master [60] in Biomedicine

At Bruxelles Woluwe - 60 credits - 1 year - Day schedule - In French

SBIM2M1 - Introduction

Introduction

SBIM2M1 - Teaching profile

Learning outcomes

The programme of the 60 credit Master is open to any students who wish to undergo additional training in biomedical sciences without having to do the two years of the full Master.

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

1 Use integrated and evolving knowledge in biomedical sciences

1.a Use general knowledge and methodologies in experimental biomedical sciences: normal and pathological biochemistry and molecular biology, cell biology, general and special histology, general anatomy, general and special physiology.
1.b Understand and criticize the experimental approaches and observation methods that led to this knowledge.
1.c Master the modern sources of knowledge and be able to effectively search for new and specific information, and criticize it.

2

Analyze, criticize, and propose perspectives of experiments in biomedical sciences

2.a

Analyze the observations in a rigorous and critical way:

Ea:

- develop analogical and deductive reasoning;

- establish links of correlation and causality;

- track down and correct logic errors.

2.b

Interpret and represent experimental results through mathematical modeling, graphical representations, reasoning and statistical tools:

Ea:

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

2.c Exploit the results of biological or clinical analyzes recorded in databases.
2.d Demonstrate creativity, recognizing failures and seeking the cause; recognizing unexpected observations and identifying their interest; by reformulating initial hypotheses, by elaborating new hypotheses.

3

Communicate both orally and in writing

3.a Enrich his vocabulary in biomedical sciences and use it accurately and nuanced in French and scientific English.
3.b

Write, in French and in English, scientific reports based on the standards of scientific publication in the biomedical sciences:

Ea:

- to argue the relevance of the experimental procedures and the proposed conclusions;

- to compare the data with those of comparable studies published in the scientific literature;

- to identify possible divergences between different studies, to propose the possible causes.

3.c Present oral communication in accordance with scientific standards in the biomedical sciences.

4 Be a professional researcher to start a scientific career

4.a Be a professional researcher to start a scientific career
4.b

Practice scientific integrity:

Ea:

- consider all available data, including those that do not support the advanced hypothesis;

- cite his sources and ban plagiarism.

4.c Develop scientific curiosity and participate in the dissemination of knowledge built on rigorous scientific data

Programme structure

The contents of the programme are determined according to the background and the project of each student.

It is made up of :
- 15 credits devoted to the dissertation,
- 17 credits of basic biomedical sciences,

OPTION NEUROSCIENCES [20.0]

- Mandatory
- Optional
- Not offered in 2024-2025
- Not offered in 2024-2025 but offered the following year
- Offered in 2024-2025 but not the following year
- Not offered in 2024-2025 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...)

Content:

WSBIM2154	Neuroanatomy and anatomo-functional imaging techniques		FR [q1] [30h] [4 Credits]
WSBIM2155	Developmental neurobiology	Fadel Tissir	FR [q1] [30h] [4 Credits]
WSBIM2156	Animal and human electrophysiology project	Philippe Gailly (coord.) Marcus Missal André Mouraux	FR [q1] [20h] [2 Credits]
WSBIM2251	Neural networks and Deep Learning *Ce cours doit être choisi par les étudiants inscrits au master 120.*	John Lee Marcus Missal (coord.)	EN [q2] [20h+10h] [3 Credits]
WSBIM2253	Advanced issues in cognitive neuroscience *Ce cours doit être choisi par les étudiants inscrits au master 120.*	Julie Duque Valéry Legrain Marcus Missal (coord.)	EN [q2] [30h+10h] [4 Credits]

⛒ WSBIM2229	Interdisciplinary program in translational medicine *Ce cours ne peut être choisi que par les étudiant inscrits en master 120. Ce programme interuniversitaire est financé par le Fond Baillet Latour. Plus de renseignements sur le site.* *L'intégration de ce cours dans votre PAE sera hors progression. Les crédits acquis n'entreront pas en considération dans l'acquisition des 120 crédits obligatoires pour l'obtention de votre diplôme de master.*		FR [q2] [50h] [5 Credits]

OPTION TOXICOLOGIE [20.0]

- Mandatory
- Optional
- Not offered in 2024-2025
- Not offered in 2024-2025 but offered the following year
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- Not offered in 2024-2025 or the following year
- Activity with requisites
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- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

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

Content:

Cours obligatoires

WSBIM2290	Introduction to laboratory animal science	Jean-Paul Dehoux	FR [q1] [37h] [3 Credits]
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*

Cours au choix

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

WFARM1303	Clinical Chemistry	Joseph Dewulf Catherine Fillee Damien Gruson Vincent Haufroid (coord.) Madeleine Rousseaux	FR [q2] [20h] [2 Credits]
WFARM2180	Organotoxicity : molecular, cellular and functional aspects	Olivier Feron (coord.) Philippe Lysy Xavier Wittebole	FR [q2] [30h+15h] [3 Credits] *> English-friendly*
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	

Stage obligatoire au choix (10 credits)

L'étudiant inscrit au Master 120 choisit un stage parmi les trois suivants. L'étudiant inscrit au Master 60 remplace ces activités de l'option par tout autre cours proposé dans les finalités et les options de master en sciences biomédicales.

⊠ WSBIM2271	International research internship	Pascal Kienlen-Campard (coord.)	EN [q2] [] [10 Credits]
⊠ WSBIM2272	Work placement	Anabelle Decottignies (coord.)	EN [q2] [] [10 Credits]
⊠ WSBIM2273	Research placement	Anabelle Decottignies (coord.)	EN [q2] [] [10 Credits]

OPTION SCIENCES BIOMÉDICALES CLINIQUES [20.0]

- Mandatory
- Optional
- Not offered in 2024-2025
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OPTION NUTRITION HUMAINE [20.0]

Supplementary classes

To access this Master, students must have a good command of certain subjects. If this is not the case, in the first annual block of their Masters programme, students must take supplementary classes chosen by the faculty to satisfy course prerequisites.

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- Activity with requisites

WFARM1305	Elements of General Pathology	Mélanie Dechamps Olivier Feron (coord.)	FR [q2] [30h] [3 Credits] *> English-friendly*
WFARM1247	Statistical data processing	Eugen Pircalabelu	EN [q2] [15h+15h] [3 Credits]

SBIM2M1 - 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

University Bachelors

Diploma	Special Requirements	Access	Remarks
UCLouvain Bachelors			
Bachelor in Biomedicine		Direct access	
Bachelor in Dentistry Bachelor in Medecine Bachelor in Pharmacy		Access with additional training	Additional requirements for admission de max 15 crédits intégrés dans le programme du master
Bachelor in Veterinary Medicine Bachelor in Chemistry Bachelor in Physics Bachelor in Bioengineering		Access based on application	Additional requirements for admission de max 60 crédits intégrés dans le programme du master
Others Bachelors of the French speaking Community of Belgium			
bachelier en sciences biomédicales		Direct access	
bachelier en médecine sciences pharmaceutiques sciences dentaires		Access with additional training	Additional requirements for admission 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	Additional requirements for admission de max 60 crédits intégrés dans le programme du master
Bachelors of the Dutch speaking Community of Belgium			
bachelor of Science in de biomedische wetenschappen		Direct access	
bachelor of Science in de geneeskunde bachelor of Science in de farmaceutische wetenschappen bachelor of Science in de tandheelkunde		Access with additional training	Additional requirements for admission de max 15 crédits intégrés dans le programme du master
bachelor of Science in de diergeneeskunde bachelor of Science in de chemie bachelor of Science in de bio-ingenieurswetenschappen		Access based on application	Additional requirements for admission de max 60 crédits intégrés dans le programme du master