

**At Bruxelles Woluwe - 180 credits - 3 years - Day schedule - In french**Dissertation/Graduation Project : **NO** - 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: **Faculté de pharmacie et des sciences biomédicales (FASB)**Programme acronym: **sbim1ba** - Francophone Certification Framework: 6**Table of contents**

Introduction .....	2
Teaching profile .....	3
- Learning outcomes .....	3
- Programme structure .....	4
- Detailed programme .....	5
- Programme by subject .....	5
- List of available minors .....	8
- Course prerequisites .....	9
- The programme's courses and learning outcomes .....	9
- Programme type .....	9
- SBIM1BA - 1st annual unit .....	9
- SBIM1BA - 2nd annual unit .....	11
- SBIM1BA - 3rd annual unit .....	13
Information .....	15
- Admission .....	15
- Teaching method .....	17
- Evaluation .....	17
- Mobility and/or Internationalisation outlook .....	17
- Possible trainings at the end of the programme .....	17
- Contacts .....	17

## SBIM1BA - Introduction

### Introduction

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## SBIM1BA - Teaching profile

### Learning outcomes

Bachelor in Biomedicine students must endeavour to prepare themselves for the training offered in the various Master's programmes taught by the School of Biomedical Sciences. To this end, students will apply themselves to acquiring the knowledge and skills that will enable them to become specialists in a field of biomedicine and play an integral part in a scientific project.

As part of the Bachelor in Biomedicine programme, students will study in detail the basic scientific foundations required to practise biomedicine and will discover a variety of specific areas of biomedical research. These activities will enable them to decide on their training projects for the Master's programme. In addition, practical lab work will enable Bachelor students to acquire the professional skills that they will develop during the Master's programme with increasing robustness and independence.

The objective of the School of Biomedical Sciences is to produce health sector professionals capable of conducting and interpreting scientific projects intended to improve the understanding, diagnosis and treatment of human diseases. In particular, the training is aimed at developing the skills required for the acquisition and analysis of observations and experiments in biomedicine, while at the same time cultivating scientific robustness and integrity.

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

1. Use the tools required to acquire integrated knowledge in biomedicine

1a. Incorporate the general knowledge and methodologies in experimental biomedicine: biochemistry and molecular biology; cellular biology, general and special histology, general anatomy; general and special physiology; principal pathologies and their multifactorial pathogenesis, genetic diseases as experiments by nature; the major principles of pharmacology.

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

1c. Use modern knowledge sources to effectively research pertinent, new and specific information.

2. Master the culture of numbers and representations

2a. Understand units and deal with orders of magnitude; use the standardisations and tests limiting the dispersion of experimental measurements; use reasoning and statistical tools; use forms of graphical representation.

2b. Understand the functions and rules of modern mathematical modelling; understand the mathematical translation of the major laws of physics, chemistry and biology (speed and constants, flux, interactions and affinity); identify the crucial limiting parameters.

2c. Display command of the IT tools that assist analysis and calculation.

3. Conduct biomedical experiments

3a. Formulate a biomedical problem, translate it into a scientific question and determine an experimental strategy to deal with it.

3b. Execute the successive steps of an experimental protocol:

i.e.:

- understand and accurately describe them, so that they may be reproduced by another scientist.

3c. Conduct experiments:

i.e.:

- manipulate biological and chemical equipment, demonstrating manual dexterity and observing laboratory best practices, including safety and waste management standards;

- use measuring and imaging instruments appropriately, as well as the IT tools associated with them;

- ensure effective reproducibility through accurate and thorough know-how.

4. Analyse, write and evaluate data from biomedical experiments

4a. Robustly analyse the observations in order to draw interpretations from them; identify analogical and deductive reasonings; identify correlation and causality.

4b. On the basis of the above reasonings, present a detailed argument of the results by comparing them with the bibliographical data (critical analysis).

4c. Recognise the failures and identify their causes.

5. Present scientific observations clearly, verbally and in writing

5a. Understand and employ a precise and specific biomedical vocabulary adapted to the applications of biomedicine.

5b. Draft a precise protocol, note the observations in detail in a laboratory notebook, write a clear, informative and exhaustive report on a series of observations or experiments.

5c. Use the rules enabling effective verbal communication of projects, published data or the results of experiments.

5d. Demonstrate the internal consistency of the results and incorporate them into the published knowledge bases.

## Programme structure

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### General presentation of the programme

The bachelor's of Biomedical Sciences totals 180 credits.

The "major" of the programme consists of a basic course of 60 credits (1st year) and a specialised training course (2nd and 3rd year) of at least 90 credits.

The major is completed by a course equivalent to 30 credits, which may be an option selected from "the options menu" (more advanced studies in Biomedical Sciences) or a "minor" (an opening course in other disciplines). The course of 30 credits may be followed together with the specialised course.

### Principal Subjects

The bachelor's studies enable the student to apprehend the world of the living, from a single atom to the whole of society .

#### *A toms, molecules and the systems which govern them :*

General and Organic Chemistry - Biochemistry - Applied Physics - Pharmacology and Pharmacokinetics - Mathematics.

#### *From a single cell to a human being*

Morphological and Functional Approach : General Cellular and Molecular Biology, - Cytology and Histology- Anatomy - Embryology - Immunology - Physiology - Microbiology - General Pathology.

#### *Man and society*

Contextual Approach : Philosophy - Psychology.

#### *Research experience*

Statistics - Strategies and applied models - Genetic Engineering - Instrumental Analysis.

#### *Other studies*

English

## SBIM1BA Detailed programme

### Programme by subject

Year

1 2 3

#### o Majeure (150 credits)

##### o Des atomes, des molécules et des systèmes qui les régissent

○ WMD1102	Physique expérimentale et introduction mathématique aux sciences expérimentales (1e partie)	Eduardo Cortina Gil	60h+21h	8 Credits	1q	x		
○ WMD1104	Physique expérimentale et introduction mathématique aux sciences expérimentales (2e partie)	Michel Herquet (compensates Fabio Maltoni) Fabio Maltoni	30h+21h	5 Credits	2q	x		
○ WSBIM1001	MATHEMATICAL METHODS IN BIOMEDICAL SCIENCES	Pierre Bieliavsky Annie Robert	45h+20h	5 Credits	2q	x		
○ WMD1105	Chimie générale et minérale	Mark Rider (coord.) Michael Singleton Alexandru Vlad	60h+30h	9 Credits	1q	x		
○ WMD1106	ORGANIC CHEMISTRY	Mohamed Ayadim Olivier Riant Michael Singleton	60h+30h	9 Credits	2q	x		
○ WPHAR1300	Pharmacologie 1re partie	Emmanuel Hermans Marie-Paule Mingeot	30h+7.5h	3 Credits	1q			x
○ WFARM1300P	Pharmacocinétique et métabolisme des xénobiotiques (partim pharmacocinétique 20h + 10h)	Laure Bindels	20h+10h	3 Credits	1q			x
○ WFARM1221S	Biochimie et biologie moléculaire (partim biochimie)	Nathalie Delzenne (coord.)	50h+10h	6 Credits	1q	x		

##### o De la cellule à l'être humain

○ WMD1120	Biologie générale et approche expérimentale de la biologie	Jean Baptiste Demoulin (coord.) Pascal Kienlen-Campard Marie-Christine Many	75h+25h	10 Credits	1q	x		
○ WMD1006	Cytology and general histology	Marie-Christine Many	10h+40h	5 Credits	2q	x		
○ WFARM1009	Elements of general and functional anatomy	Christine Galant (coord.) Pierre Gianello Alain Poncelet	30h	3 Credits	2q	x		
○ WSBIM1226	Biologie moléculaire (dont l'épigénétique) et travaux dirigés	Charles De Smet Frédéric Lemaigre Thomas Michiels (coord.)	30h+10h	3 Credits	1q		x	
○ WSBIM1227	Biologie moléculaire et biochimie intégrée	Etienne De Plaen Jean-Noël Octave (coord.)	20h+30h	3 Credits	2q		x	
○ WMDS1211	Biologie cellulaire, médicale et expérimentale	Stefan Constantinescu (coord.) Christophe Pierreux Donatienne Tyteca	30h+20h	4 Credits	1q		x	
○ WANAT1110	Human embryology	Frédéric Clotman Charles De Smet (coord.) Christophe Pierreux	30h	3 Credits	2q		x	
○ WSBIM1201T	Physiologie générale (partim théorie, 40h)	Olivier Feron (coord.) Patrick Gilon (coord.)	40h	4 Credits	1q		x	

						Year		
						1	2	3
○ WSBIM1201P	Physiologie générale (partie travaux pratiques, 25h) 🟡	Olivier Feron (coord.) Patrick Gilon (coord.)	0h+25h	2 Credits	1q		x	
○ WSBIM1203	Histologie spéciale et hématologie 🟡	Marie-Christine Many (coord.) Etienne Marbaix	15h+15h	3 Credits	1q		x	
○ WSBIM1204	Atelier d'histologie et d'anatomie pathologique 🟡	Yves Guiot Marie-Christine Many Etienne Marbaix (coord.)	30h	2 Credits	2q		x	
○ WFARM1282	General microbiology 🟡	Thomas Michiels	20h+15h	3 Credits	1q		x	
○ WSBIM1200	Analyse instrumentale biomédicale et radioprotection 🟡	Giulio Muccioli	30h+30h	4 Credits	1q		x	
○ WFARM1213	Human physiology and basics of physiopathology 🟡	Olivier Feron (coord.) Emmanuel Hermans Philippe Lysy	60h	5 Credits	2q			x
○ WMDS1222	Biochimie humaine pathologique 🟡	Guido Bommer Jean-François Collet Frédéric Lemaigre (coord.)	50h	5 Credits	2q			x
○ WMDS1312	Génétique humaine 🟡	Miikka Vikkula	20h	2 Credits	2q			x
○ WSBIM1334	Immunologie générale 🟡	Pierre Coulie (compensates Jean-Christophe Renaud) Pierre Coulie (coord.) Sophie Lucas (compensates Jean-Christophe Renaud) Jean-Christophe Renaud Benoît Van den Eynde	65h	5 Credits	1q			x
○ WSBIM1382	Génétique et biotechnologie appliquée 🟡	Etienne De Plaen Jean-Noël Octave (coord.)	30h	3 Credits	1q			x
○ WSBIM1302	Molecular Virology 🟡	Thomas Michiels	15h	2 Credits	1q			x
○ WFARM1305	Elements of General Pathology 🟡	Olivier Feron Stéphane Moniotte (coord.)	30h	3 Credits	2q			x
○ WSBIM1293	Training course in cell biology 🟡	Nicolas Dauguet Laure Dumoutier (compensates Jean-Christophe Renaud) Laure Dumoutier (coord.)	30h	2 Credits	2q		x	
○ WSBIM1303P	Ateliers de stratégie expérimentale en biologie cellulaire et moléculaire (pratique) 🟡	Pascal Kienlen-Campard (coord.)	30h	3 Credits	2q			x
○ WSBIM1303T	Ateliers de stratégie expérimentale en biologie cellulaire et moléculaire (théorie) 🟡	Pascal Kienlen-Campard (coord.)	30h	3 Credits	1q			x

### o L'homme et la société : approche contextuelle

Les étudiants qui choisissent une mineure d'ouverture dans leur programme de 2e année doivent, en 3e année, suivre le cours SDEV2102 Epidémiologie (20h + 20h, 3c) à la place du cours FSP2238.

○ WFARM1247	Traitement statistique des données 🟡	Céline Bugli (compensates Eugen Pircalabelu) Eugen Pircalabelu	15h+15h	3 Credits	2q		x	
○ WFSP2238S	Advanced epidemiology (partim sciences biomédicales) 🟡	Brecht Devleeschauwer Niko Speybroeck	20h	2 Credits	2q			x
○ WFARM2177	Biostatistics 🟡	Laure Elens	20h+10h	3 Credits	2q			x
○ LANGL1854	Medical English	Aurélie Deneumoustier Ariane Halleux Carlo Lefevre (coord.) Nevin Serbest Thibaud Stevens	30h	3 Credits	2q	x		
○ LANGL1855	Medical English 🟡	Timothy Byrne (coord.) Aurélie Deneumoustier Carlo Lefevre (coord.)	30h	3 Credits	1 ou 2q		x	

						Year		
						1	2	3
○ LANGL2454	English for biomedical students	Nicholas Gibbs Nevin Serbest (coord.)	30h	3 Credits	2q			x
○ WFARM1160	Philosophy	Mylene Botbol Fabio Bruschi (compensates Mylene Botbol)	30h	3 Credits	1q	x		

### o Mineure (30 credits)

En complément de la majeure, l'étudiant choisit soit une mineure d'approfondissement en sciences biomédicales soit une mineure d'ouverture proposée par d'autres programmes, à raison de 15 crédits en BAC2 et 15 crédits en BAC3.

### ⊗ Additional module in Biomedical Sciences (30 credits)

#### o Deuxième année de bachelier

L'étudiant est tenu de suivre les cours suivants :

○ WSBIM1205	Introduction à la toxicologie	Nathalie Delzenne Philippe Hantson Vincent Haufroid Perrine Hoet François Huaux Dominique Lison (coord.) Pierre Wallemacq	30h	3 Credits	2q		x	
○ WSBIM1211	Methodology of cell and molecular biology	Guido Bommer Jean-François Collet (coord.) Stefan Constantinescu Christophe Pierreux	22.5h	3 Credits	2q		x	
○ WSBIM1206	Du nutriment à l'aliment	Sonia Brichard Jean-Paul Thissen	30h	3 Credits	1q		x	
○ WSBIM1220	Éléments de neurosciences	Frédéric Clotman (compensates Sylvie Nozaradan) Bernard Hanseeuw Emmanuel Hermans (coord.) Marcus Missal Sylvie Nozaradan	30h	3 Credits	2q		x	
○ WSBIM1207	Introduction à la bio-informatique	Laurent Gatto	15h+20h	3 Credits	2q		x	

#### o Troisième année de bachelier

L'étudiant est tenu de suivre les cours suivants :

○ WFARM2139T	Pharmacogénomique et toxicologie (partim toxicologie, 30h)	Laure Bindels	30h	3 Credits	1q			x
○ WSBIM1320	Introduction aux approches expérimentales de la biologie cellulaire et moléculaire	Anne des Rieux Ilse Dewachter (coord.) Sandrine Horman Donatienne Tyteca	30h	3 Credits	2q			x
○ WSBIM1305	Introduction à la nutrition humaine	Véronique Beauloye Sonia Brichard (coord.)	30h	3 Credits	1q			x
○ WSBIM1393	Stage en laboratoire	Pascal Kienlen-Campard	30h	3 Credits	2q			x
○ WSBIM1321	Éléments de neurosciences, 2e partie	Frédéric Clotman Philippe Gailly Pascal Kienlen- Campard (coord.)	30h	3 Credits	1q			x

### ⊗ Mineure d'ouverture (30 credits)

En alternative à la mineure d'approfondissement, l'étudiant peut choisir une mineure d'ouverture à d'autres disciplines parmi la liste ci-dessous ou dans la rubrique Mineure.

○	Mineure d'ouverture Voir la liste ci-dessous.			15 Credits				x
○	Mineure d'ouverture L'étudiant poursuit la mineure d'ouverture choisie en 2e année dans la liste ci-dessous.			15 Credits				x

## List of available minors

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During the bachelor's of Biomedical Sciences, personally selected options will give the student the opportunity to become more familiar with the different branches available at master's level.

Instead of the options, the bachelor's may also include a "minor" which will enable the student to open up new horizons.

- > Additionnal module in Biomedical Sciences [ <https://www.uclouvain.be/en-prog-2018-app-wsbim100p> ]
- > Mineure en Antiquité : Égypte, Orient, Grèce, Rome [ <https://www.uclouvain.be/en-prog-2018-min-lanti100i> ]
- > Mineure en sciences des religions (ouverture) [ <https://www.uclouvain.be/en-prog-2018-min-lreli100i> ]
- > Minor in Economics [ <https://www.uclouvain.be/en-prog-2018-min-lecon100i> ]
- > Minor in Arabic language and Islamic civilization [ <https://www.uclouvain.be/en-prog-2018-min-lisla100i> ]
- > Minor in Chinese studies [ <https://www.uclouvain.be/en-prog-2018-min-lchin100i> ]
- > Minor in Christian Theology [ <https://www.uclouvain.be/en-prog-2018-min-ltheo100i> ]
- > Minor in Criminology [ <https://www.uclouvain.be/en-prog-2018-min-lcrim100i> ]
- > Minor in Culture and Creation [ <https://www.uclouvain.be/en-prog-2018-min-lcucr100i> ]
- > Minor in Development and Environment [ <https://www.uclouvain.be/en-prog-2018-min-ldenv100i> ]
- > Minor in Economics (open) [ <https://www.uclouvain.be/en-prog-2018-min-loeco100i> ]
- > Minor in Education (\*) [ <https://www.uclouvain.be/en-prog-2018-min-lfopa100i> ]
- > Minor in European Studies [ <https://www.uclouvain.be/en-prog-2018-min-leuro100i> ]
- > Minor in French Studies [ <https://www.uclouvain.be/en-prog-2018-min-lfran100i> ]
- > Minor in Gender Studies [ <https://www.uclouvain.be/en-prog-2018-min-lgenr100i> ]
- > Minor in Geography [ <https://www.uclouvain.be/en-prog-2018-min-lgeog100i> ]
- > Minor in History [ <https://www.uclouvain.be/en-prog-2018-min-lhist100i> ]
- > Minor in History of Art and Archeology [ <https://www.uclouvain.be/en-prog-2018-min-larke100i> ]
- > Minor in Human and Social Sciences [ <https://www.uclouvain.be/en-prog-2018-min-lhuso100i> ]
- > Minor in Information and Communication [ <https://www.uclouvain.be/en-prog-2018-min-lcomu100i> ]
- > Minor in Law (access) [ <https://www.uclouvain.be/en-prog-2018-min-ladrt100i> ]
- > Minor in Linguistics [ <https://www.uclouvain.be/en-prog-2018-min-lling100i> ]
- > Minor in Literary Studies [ <https://www.uclouvain.be/en-prog-2018-min-llitt100i> ]
- > Minor in Mangement (basic knowledge) [ <https://www.uclouvain.be/en-prog-2018-min-lgesa100i> ]
- > Minor in Medication Sciences [ <https://www.uclouvain.be/en-prog-2018-min-wfarm100i> ]
- > Minor in Medieval Studies [ <https://www.uclouvain.be/en-prog-2018-min-lmedi100i> ]
- > Minor in Musicology [ <https://www.uclouvain.be/en-prog-2018-min-lmusi100i> ]
- > Minor in Oriental Studies [ <https://www.uclouvain.be/en-prog-2018-min-lori100i> ]
- > Minor in Philosophy [ <https://www.uclouvain.be/en-prog-2018-min-lisp100i> ]
- > Minor in Political Sciences [ <https://www.uclouvain.be/en-prog-2018-min-lspol100i> ]
- > Minor in Population and Development Studies [ <https://www.uclouvain.be/en-prog-2018-min-lsped100i> ]
- > Minor in Scientific Culture [ <https://www.uclouvain.be/en-prog-2018-min-lcusc100i> ]
- > Minor in Sociology and Anthropology [ <https://www.uclouvain.be/en-prog-2018-min-lsoca100i> ]
- > Minor in Statistics and data sciences [ <https://www.uclouvain.be/en-prog-2018-min-lstat100i> ]
- > Minor in Sustainable Development [ <https://www.uclouvain.be/en-prog-2018-min-ldvld100i> ]
- > Minor in law (open) [ <https://www.uclouvain.be/en-prog-2018-min-lodrt100i> ]

(\*) This program is the subject of access criteria

## Course prerequisites

A document entitled (nb: [not available](#) for this programme sbim1ba) specifies the activities (course units - CU) with one or more prerequisite(s) within the study programme, that is the CU whose learning outcomes must have been certified and for which the credits must have been granted by the jury before the student is authorised to sign up for that activity.

These activities are identified in the study programme: their title is followed by a yellow square.

As the prerequisites are a requirement of enrolment, there are none within a year of a course.

The prerequisites are defined for the CUs for different years and therefore influence the order in which the student can enrol in the programme's CUs.

In addition, when the panel validates a student's individual programme at the beginning of the year, it ensures the consistency of the individual programme:

- It can change a prerequisite into a corequisite within a single year (to allow studies to be continued with an adequate annual load);
- It can require the student to combine enrolment in two separate CUs it considers necessary for educational purposes.

For more information, please consult [regulation of studies and exams](#).

## The programme's courses and learning outcomes

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

## Programme type

### SBIM1BA - 1ST ANNUAL UNIT

● Mandatory

△ Courses not taught during 2018-2019

⊕ Periodic courses taught during 2018-2019

⊗ Optional

⊖ Periodic courses not taught during 2018-2019

■ Activity with requisites

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

### ○ Majeure

#### ○ Des atomes, des molécules et des systèmes qui les régissent

○ WMD1102	<a href="#">Physique expérimentale et introduction mathématique aux sciences expérimentales (1e partie)</a>	Eduardo Cortina Gil	60h+21h	8 Credits	1q
○ WMD1104	<a href="#">Physique expérimentale et introduction mathématique aux sciences expérimentales (2e partie)</a>	Michel Herquet (compensates Fabio Maltoni) Fabio Maltoni	30h+21h	5 Credits	2q
○ WSBIM1001	<a href="#">MATHEMATICAL METHODS IN BIOMEDICAL SCIENCES</a>	Pierre Bieliavsky Annie Robert	45h+20h	5 Credits	2q
○ WMD1105	<a href="#">Chimie générale et minérale</a>	Mark Rider (coord.) Michael Singleton Alexandru Vlad	60h+30h	9 Credits	1q
○ WMD1106	<a href="#">ORGANIC CHEMISTRY</a>	Mohamed Ayadim Olivier Riant Michael Singleton	60h+30h	9 Credits	2q

#### ○ De la cellule à l'être humain

○ WMD1120	<a href="#">Biologie générale et approche expérimentale de la biologie</a>	Jean Baptiste Demoulin (coord.) Pascal Kienlen-Campard Marie-Christine Many	75h+25h	10 Credits	1q
○ WMD1006	<a href="#">Cytology and general histology</a>	Marie-Christine Many	10h+40h	5 Credits	2q
○ WFARM1009	<a href="#">Elements of general and functional anatomy</a>	Christine Galant (coord.) Pierre Gianello Alain Poncelet	30h	3 Credits	2q

### o L'homme et la société : approche contextuelle

Les étudiants qui choisissent une mineure d'ouverture dans leur programme de 2e année doivent, en 3e année, suivre le cours SDEV2102 Epidémiologie (20h + 20h, 3c) à la place du cours FSP2238.

o LANGL1854	Medical English	Aurélie Deneumoustier Ariane Halleux Carlo Lefevre (coord.) Nevin Serbest Thibaud Stevens	30h	3 Credits	2q
o WFARM1160	Philosophy	Mylene Botbol Fabio Bruschi (compensates Mylene Botbol)	30h	3 Credits	1q

**SBIM1BA - 2ND ANNUAL UNIT**

○ Mandatory

△ Courses not taught during 2018-2019

⊕ Periodic courses taught during 2018-2019

⊗ Optional

⊖ Periodic courses not taught during 2018-2019

■ Activity with requisites

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

**○ Majeure****○ Des atomes, des molécules et des systèmes qui les régissent**

○ WFARM1221S	Biochimie et biologie moléculaire (partim biochimie) ■	Nathalie Delzenne (coord.)	50h+10h	6 Credits	1q
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**○ De la cellule à l'être humain**

○ WSBIM1226	Biologie moléculaire (dont l'épigénétique) et travaux dirigés ■	Charles De Smet Frédéric Lemaigre Thomas Michiels (coord.)	30h+10h	3 Credits	1q
○ WSBIM1227	Biologie moléculaire et biochimie intégrée ■	Etienne De Plaen Jean-Noël Octave (coord.)	20h+30h	3 Credits	2q
○ WMDS1211	Biologie cellulaire, médicale et expérimentale ■	Stefan Constantinescu (coord.) Christophe Pierreux Donatienne Tyteca	30h+20h	4 Credits	1q
○ WANAT1110	Human embryology ■	Frédéric Clotman Charles De Smet (coord.) Christophe Pierreux	30h	3 Credits	2q
○ WSBIM1201T	Physiologie générale (partim théorie, 40h) ■	Olivier Feron (coord.) Patrick Gilon (coord.)	40h	4 Credits	1q
○ WSBIM1201P	Physiologie générale (partie travaux pratiques, 25h) ■	Olivier Feron (coord.) Patrick Gilon (coord.)	0h+25h	2 Credits	1q
○ WSBIM1203	Histologie spéciale et hématologie ■	Marie-Christine Many (coord.) Etienne Marbaix	15h+15h	3 Credits	1q
○ WSBIM1204	Atelier d'histologie et d'anatomie pathologique ■	Yves Guiot Marie-Christine Many Etienne Marbaix (coord.)	30h	2 Credits	2q
○ WFARM1282	General microbiology ■	Thomas Michiels	20h+15h	3 Credits	1q
○ WSBIM1200	Analyse instrumentale biomédicale et radioprotection ■	Giulio Muccioli	30h+30h	4 Credits	1q
○ WSBIM1293	Training course in cell biology ■	Nicolas Dauguet Laure Dumoutier (compensates Jean-Christophe Renaud) Laure Dumoutier (coord.)	30h	2 Credits	2q

**○ L'homme et la société : approche contextuelle**

Les étudiants qui choisissent une mineure d'ouverture dans leur programme de 2e année doivent, en 3e année, suivre le cours SDEV2102 Epidémiologie (20h + 20h, 3c) à la place du cours FSP2238.

○ WFARM1247	Traitement statistique des données ■	Céline Bugli (compensates Eugen Pircalabelu) Eugen Pircalabelu	15h+15h	3 Credits	2q
○ LANGL1855	Medical English ■	Timothy Byrne (coord.) Aurélie Deneumoustier Carlo Lefevre (coord.)	30h	3 Credits	1 ou 2q

**○ Mineure**

En complément de la majeure, l'étudiant choisit soit une mineure d'approfondissement en sciences biomédicales soit une mineure d'ouverture proposée par d'autres programmes, à raison de 15 crédits en BAC2 et 15 crédits en BAC3.

## ⌘ Additionnal module in Biomedical Sciences

### ○ Deuxième année de bachelier

L'étudiant est tenu de suivre les cours suivants :

○ WSBIM1205	<a href="#">Introduction à la toxicologie</a> 🟡	Nathalie Delzenne Philippe Hantson Vincent Haufroid Perrine Hoet François Huaux Dominique Lison (coord.) Pierre Wallemacq	30h	3 Credits	2q
○ WSBIM1211	<a href="#">Methodolgy of cell and molecular biology</a> 🟡	Guido Bommer Jean-François Collet (coord.) Stefan Constantinescu Christophe Pierreux	22.5h	3 Credits	2q
○ WSBIM1206	<a href="#">Du nutriment à l'aliment</a> 🟡	Sonia Brichard Jean-Paul Thissen	30h	3 Credits	1q
○ WSBIM1220	<a href="#">Eléments de neurosciences</a> 🟡	Frédéric Clotman (compensates) Sylvie Nozaradan) Bernard Hanseeuw Emmanuel Hermans (coord.) Marcus Missal Sylvie Nozaradan	30h	3 Credits	2q
○ WSBIM1207	<a href="#">Introduction à la bio-informatique</a>	Laurent Gatto	15h+20h	3 Credits	2q

## ⌘ Mineure d'ouverture

En alternative à la mineure d'approfondissement, l'étudiant peut choisir une mineure d'ouverture à d'autres disciplines parmi la liste ci-dessous ou dans la rubrique Mineure.

○	<a href="#">Mineure d'ouverture</a> Voir la liste ci-dessous.			15 Credits	
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**SBIM1BA - 3RD ANNUAL UNIT**

● Mandatory

△ Courses not taught during 2018-2019

⊕ Periodic courses taught during 2018-2019

⊗ Optional

⊖ Periodic courses not taught during 2018-2019

■ Activity with requisites

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

**o Majeure****o Des atomes, des molécules et des systèmes qui les régissent**

● WPHAR1300	Pharmacologie 1re partie ■	Emmanuel Hermans Marie-Paule Mingéot	30h+7.5h	3 Credits	1q
● WFARM1300P	Pharmacocinétique et métabolisme des xénobiotiques (partim pharmacocinétique 20h + 10h) ■	Laure Bindels	20h+10h	3 Credits	1q

**o De la cellule à l'être humain**

● WFARM1213	Human physiology and basics of physiopathology ■	Olivier Feron (coord.) Emmanuel Hermans Philippe Lysy	60h	5 Credits	2q
● WMDS1222	Biochimie humaine pathologique ■	Guido Bommer Jean-François Collet Frédéric Lemaigre (coord.)	50h	5 Credits	2q
● WMDS1312	Génétique humaine ■	Miikka Vikkula	20h	2 Credits	2q
● WSBIM1334	Immunologie générale ■	Pierre Coulie (compensates Jean-Christophe Renaud) Pierre Coulie (coord.) Sophie Lucas (compensates Jean-Christophe Renaud) Jean-Christophe Renaud Benoît Van den Eynde	65h	5 Credits	1q
● WSBIM1382	Génétique et biotechnologie appliquée ■	Etienne De Plaen Jean-Noël Octave (coord.)	30h	3 Credits	1q
● WSBIM1302	Molecular Virology ■	Thomas Michiels	15h	2 Credits	1q
● WFARM1305	Elements of General Pathology ■	Olivier Feron Stéphane Moniotte (coord.)	30h	3 Credits	2q
● WSBIM1303P	Ateliers de stratégie expérimentale en biologie cellulaire et moléculaire (pratique) ■	Pascal Kienlen-Campard (coord.)	30h	3 Credits	2q
● WSBIM1303T	Ateliers de stratégie expérimentale en biologie cellulaire et moléculaire (théorie) ■	Pascal Kienlen-Campard (coord.)	30h	3 Credits	1q

**o L'homme et la société : approche contextuelle**

Les étudiants qui choisissent une mineure d'ouverture dans leur programme de 2e année doivent, en 3e année, suivre le cours SDEV2102 Epidémiologie (20h + 20h, 3c) à la place du cours FSP2238.

● WFSP2238S	Advanced epidemiology (partim sciences biomédicales) ■	Brecht Devleeschauwer Niko Speybroeck	20h	2 Credits	2q
● WFARM2177	Biostatistics ■	Laure Elens	20h+10h	3 Credits	2q
● LANGL2454	English for biomedical students ■	Nicholas Gibbs Nevin Serbest (coord.)	30h	3 Credits	2q

**o Mineure**

En complément de la majeure, l'étudiant choisit soit une mineure d'approfondissement en sciences biomédicales soit une mineure d'ouverture proposée par d'autres programmes, à raison de 15 crédits en BAC2 et 15 crédits en BAC3.

**⊗ Additional module in Biomedical Sciences****o Troisième année de bachelier**

L'étudiant est tenu de suivre les cours suivants :

○ WFARM2139T	Pharmacogénomique et toxicologie (partim toxicologie, 30h) 🟡	Laure Bindels	30h	3 Credits	1q
○ WSBIM1320	Introduction aux approches expérimentales de la biologie cellulaire et moléculaire 🟡	Anne des Rieux Ilse Dewachter (coord.) Sandrine Horman Donatienne Tyteca	30h	3 Credits	2q
○ WSBIM1305	Introduction à la nutrition humaine 🟡	Véronique Beauloye Sonia Brichard (coord.)	30h	3 Credits	1q
○ WSBIM1393	Stage en laboratoire 🟡	Pascal Kienlen-Campard	30h	3 Credits	2q
○ WSBIM1321	Eléments de neurosciences, 2e partie 🟡	Frédéric Clotman Philippe Gailly Pascal Kienlen-Campard (coord.)	30h	3 Credits	1q

### ⌘ Mineure d'ouverture

En alternative à la mineure d'approfondissement, l'étudiant peut choisir une mineure d'ouverture à d'autres disciplines parmi la liste ci-dessous ou dans la rubrique Mineure.

○	<b>Mineure d'ouverture</b> L'étudiant poursuit la mineure d'ouverture choisie en 2e année dans la liste ci-dessous.			15 Credits	
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## SBIM1BA - Information

### Admission

*Decree of 7 November 2013 defining the landscape of higher education and the academic organization of studies.*

*The admission requirements must be met prior to enrolment in the University.*

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

#### SUMMARY

- [General requirements](#)
- [Specific requirements](#)
- [Exam of knowledge of the French language](#)
- [Special requirements](#)

### General requirements

Except as otherwise provided by other specific legal provisions, admission to undergraduate courses leading to the award of a Bachelor's degree will be granted to students with one of the following qualifications :

1. A Certificate of Upper Secondary Education issued during or after the 1993-1994 academic year by an establishment offering full-time secondary education or an adult education centre in the French Community of Belgium and, as the case may be, approved if it was issued by an educational institution before 1 January 2008 or affixed with the seal of the French Community if it was issued after this date, or an equivalent certificate awarded by the Examination Board of the French Community during or after 1994;
2. A Certificate of Upper Secondary Education issued no later than the end of the 1992-1993 academic year, along with official documentation attesting to the student's ability to pursue higher education for students applying for a full-length undergraduate degree programme;
3. A diploma awarded by a higher education institution within the French Community that confers an academic degree issued under the above-mentioned Decree, or a diploma awarded by a university or institution dispensing full-time higher education in accordance with earlier legislation;
4. A higher education certificate or diploma awarded by an adult education centre;
5. A pass certificate for one of the [entrance examinations](https://uclouvain.be/fr/etudier/inscriptions/examens-admission.html) (https://uclouvain.be/fr/etudier/inscriptions/examens-admission.html) organized by higher education institutions or by an examination board of the French Community; this document gives admission to studies in the sectors, fields or programmes indicated therein;
6. A diploma, certificate of studies or other qualification similar to those mentioned above, issued by the Flemish Community of Belgium (this qualification does not grant exemption from the [French language proficiency examination](https://uclouvain.be/en/study/inscriptions/language-requirements.html) (https://uclouvain.be/en/study/inscriptions/language-requirements.html)), the German Community of Belgium or the Royal Military Academy;
7. A diploma, certificate of studies or other qualification obtained abroad and deemed equivalent to the first four mentioned above by virtue of a law, decree, European directive or international convention;

Note:

Requests for equivalence must be submitted no later than 14 July 2018 to the Equivalence department ([Service des équivalences](#)) of the Ministry of Higher Education and Scientific Research of the French Community of Belgium.

The following two qualifications are automatically deemed equivalent to the Certificate of Upper Secondary Education (Certificat d'enseignement secondaire supérieur – CESS):

- European Baccalaureate issued by the Board of Governors of a European School,
- International Baccalaureate issued by the International Baccalaureate Office in Geneva.

These two qualifications do not, however, provide automatic exemption from the [French language proficiency examination](https://uclouvain.be/en/study/inscriptions/language-requirements.html) (https://uclouvain.be/en/study/inscriptions/language-requirements.html).

8. Official documentation attesting to a student's ability to pursue higher education (diplôme d'aptitude à accéder à l'enseignement supérieur - DAES), issued by the Examination Board of the French Community.

### Specific requirements

Admission to undergraduate studies on the basis of accreditation of knowledge and skills obtained through professional or personal experience (Accreditation of Prior Experience)

Subject to the general requirements laid down by the authorities of the higher education institution, with the aim of admission to the undergraduate programme, the examination boards accredit the knowledge and skills that students have obtained through their professional or personal experience.

This experience must correspond to at least five years of documented activity, with years spent in higher education being partially taken into account: 60 credits are deemed equivalent to one year of experience, with a maximum of two years being counted. At the end of an assessment procedure organized by the authorities of the higher education institution, the Examination Board will decide whether a student has sufficient skills and knowledge to successfully pursue undergraduate studies.

After this assessment, the Examination Board will determine the additional courses and possible exemptions constituting the supplementary requirements for the student's admission.

## Exam of knowledge of the French language

Anyone not demonstrating sufficient French language proficiency (<https://uclouvain.be/en/study/inscriptions/language-requirements.html>) will not be admitted to the first-year undergraduate examinations.

## Special requirements

- Admission to **undergraduate studies in engineering: civil engineering and architect**

Pass certificate for the special entrance examination for undergraduate studies in engineering: civil engineering and architect (<https://uclouvain.be/fr/facultes/epl/examenadmission.html>).

Admission to these courses is always subject to students passing the special entrance examination. Contact the faculty office for the programme content and the examination arrangements.

- Admission to **undergraduate studies in veterinary medicine**

Admission to undergraduate studies in veterinary medicine is governed by the Decree of 16 June 2006 regulating the number of students in certain higher education undergraduate courses (non-residents) (<https://uclouvain.be/en/study/inscriptions/etudes-contingentes.html>).

- Admission to **undergraduate studies in physiotherapy and rehabilitation**

Admission to undergraduate studies in physiotherapy and rehabilitation is governed by the Decree of 16 June 2006 regulating the number of students in certain higher education undergraduate courses (non-residents). (<https://uclouvain.be/en/study/inscriptions/etudes-contingentes.html>)

- Admission to **undergraduate studies in psychology and education: speech and language therapy**

Admission to undergraduate studies in psychology and education: speech and language therapy is governed by the Decree of 16 June 2006 regulating the number of students in certain higher education undergraduate courses (non-residents) (<https://uclouvain.be/en/study/inscriptions/etudes-contingentes.html>).

- Admission to **undergraduate studies in medicine and dental science**

Admission to undergraduate studies in medicine and dental science is governed by the Decree of 16 June 2006 regulating the number of students in certain higher education undergraduate courses (non-residents). (<https://uclouvain.be/en/study/inscriptions/etudes-contingentes.html>)

Note: students wishing to enrol for a **Bachelor's degree in Medicine** or a **Bachelor's degree in dental science** must first sit an aptitude test (fr) (<https://uclouvain.be/en/study/inscriptions/etudes-contingentes.html>).

## Teaching method

Throughout the Bachelor in Biomedicine programme, students encounter a variety of teaching methods: classroom lectures, tutoring, mentoring and practical laboratory work.

The substantial amount of laboratory work was introduced to enable learning in research through experimentation. It is also identified in the programme in relation to classroom lectures.

## Evaluation

**The evaluation methods comply with the regulations concerning studies and exams (<https://uclouvain.be/fr/decouvrir/rgee.html>). More detailed explanation of the modalities specific to each learning unit are available on their description sheets under the heading "Learning outcomes evaluation method".**

The educational activities are evaluated by written or oral exams, according to the rules in force at the University (see Exam Regulations). Examination sessions are organised on completion of training periods (January, June) and in September. The practical work is subject to ongoing assessment.

## Mobility and/or Internationalisation outlook

Aucune mobilité d'étudiant est prévue au cours du 1er cycle des études de sciences biomédicales.

## Possible trainings at the end of the programme

Positioning of the programme within the University cursus

The bachelor's degree entitles access to the master's of Biomedical Sciences which comprises four sections : Applied Biomedical Sciences, Clinical Biomedical Sciences, Human Nutrition and Toxicology.

Furthermore, there is sufficient homogeneity within the programmes offered by the different schools of the Faculty of Medicine (MED, FARM, DENT, SBIM, IEPR) to make re-orientation possible during the bachelor's studies by means of additional complementary courses.

Other studies accessible upon completion of the programme

Other masters offered by the Faculty of Medicine, as well as certain programmes in the Faculty of Sciences, may be accessible, subject to certain prerequisites.

## Contacts

**Attention, you are currently reading an archived page: below contact informations were for program study 2018-2019 only. To get current contact informations please got to [current program study site](#).**

## Curriculum Management

Entity

Structure entity

Denomination

Faculty

Sector

Acronym

Postal address

SSS/FASB/SBIM

(**SBIM**) (<https://uclouvain.be/repertoires/entites/sbim>)

Faculty of Pharmacy and Biomedical Sciences (**FASB**) (<https://uclouvain.be/repertoires/entites/fasb>)

Health Sciences (**SSS**) (<https://uclouvain.be/repertoires/entites/sss>)

SBIM

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Academic supervisor: Pascal Kienlen-Campard

Jury

- Pascal Kienlen-Campard
- Jean Baptiste Demoulin

Useful Contact(s)

- Fabienne Titeux
- Guillaume Arnould
- Jean-Noël Octave
- Charles De Smet
- Stéphanie Lozes

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