SBIM1BA - Introduction

Introduction

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

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

			Year 1 2 3
WSBIM1313	Experimental design in biomedical sciences	Luc Bertrand Charles De Smet Pascal Kienlen-Campard (coord.)	FR [q2] [40h] [4 Credits] *> English-friendly*

				Year 1	2	3
WFARM2139T	Pharmacocinetic, genomics and toxicology (toxicology part)	Laure Bindels (coord.)	FR [q1] [22h] [3 Credits] *> English-friendly*			x
WSBIM1320						

List of available minors

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.

> Minor in Law (access) *[en-prog-2024-minadroi]*
> Minor in Antiquity: Egypt, Eastern World, Greece, Rome *[en-prog-2024-minanti]*
> Minor in History of Art and Archeology *[en-prog-2024-minarke]*
> Minor in Chinese studies *[en-prog-2024-minchin]*
> Minor in Information and Communication *[en-prog-2024-mincomu]*
> Minor in Criminology *[en-prog-2024-mincrim]*
> Minor in Culture and Creation *[en-prog-2024-mincucrea]*
> Minor in Scientific Culture *[en-prog-2024-mincults]*
> Minor in Development and Environment *[en-prog-2024-mindenv]*
> Minor : Issues of Transition and Sustainable Development (*)

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 puposes 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.

Prerequisities list

LANGL1855 "Anglais médical" has prerequisite(s) LANGL1854

- LANGL1854 - Medical English

LANGL2454 "Anglais pour étudiants en sciences biomédicales" has prerequisite(s) LANGL1855

- LANGL1855 - Medical English

WFARM1202 "Eléments d'épidémiologie appliquée aux sciences pharmaceutiques et biomédicales" has prerequisite(s) WFARM1247 ET WSBIM1207 ET LANGL1855

- WFARM1247 - Statistical data processing
- WSBIM1207 - Introducp.125 Tm [cAtio042lrIg

WMDS1231 "Biochimie humaine pathologique" has prerequisite(s) WFARM1213S ET WFARM1221S ET WSBIM1227 ET WFARM1282 ET WFARM1247 ET WSBIM1201T ET WSBIM1201P

- WFARM1213S - Human physiology and basics of physiopathology - (Partim SBIM)
- WFARM1221S - Biochemistry and molecular biology
- WSBIM1227 - Molecular biology and integrated biochemistry
- WFARM1282 - General microbiology
- WFARM1247 - Statistical data processing
- WSBIM1201T - General physiology - General physiology (theory part, 40h)
- WSBIM1201P - General physiology - General physiology (practical part, 25h)

WPHAR1300 "Pharmacologie 1re partie" has prerequisite(s) WFARM1213S ET WSBIM1201T ET WSBIM1201P

- WFARM1213S - Human physiology and basics of physiopathology - (Partim SBIM)
- WSBIM1201T - General physiology - General physiology (theory part, 40h)
- WSBIM1201P - General physiology - General physiology (practical part, 25h)

WSBIM1200 "Analyse instrumentale biomédicale et radioprotection" has prerequisite(s) WSBIM1001 ET WMD1105 ET WMD1106

- WSBIM1001 - MATHEMATICAL METHODS IN BIOMEDICAL SCIENCES
- WMD1105 - Chimie générale et minérale
- WMD1106 - ORGANIC CHEMISTRY

WSBIM1201P "Physiologie générale (partie travaux pratiques, 25h)" has prerequisite(s) WMD1102 ET WMD1104

- WMD1102 - Physique expérimentale et introduction mathématique aux sciences expérimentales (1e partie)
- WMD1104 - Physique expérimentale et introduction mathématique aux sciences expérimentales (2e partie)

WSBIM1201T "Physiologie générale (partim théorie, 40h)" has prerequisite(s) WMD1120 ET WMD1006 ET WMD1102 ET WMD1104

- WMD1120 - General biology and an experimental approach to biology
- WMD1006 - Cytology and general histology
- WMD1102 - Physique expérimentale et introduction mathématique aux sciences expérimentales (1e partie)
- WMD1104 - Physique expérimentale et introduction mathématique aux sciences expérimentales (2e partie)

WSBIM1203 "Histologie spéciale et hématologie" has prerequisite(s) WFARM1009 ET WMD1006

- WFARM1009 - Elements of general and functional anatomy
- WMD1006 - Cytology and general histology

WSBIM1205 "Introduction à la toxicologie" has prerequisite(s) WMD1105 ET WMD1106

- WMD1105 - Chimie générale et minérale
- WMD1106 - ORGANIC CHEMISTRY

WSBIM1206 "Du nutriment à l'aliment" has prerequisite(s) WFARM1009 ET WMD1105 ET WMD1106

- WFARM1009 - Elements of general and functional anatomy
- WMD1105 - Chimie générale et minérale
- WMD1106 - ORGANIC CHEMISTRY

WSBIM1207 "Introduction à la bio-informatique" has prerequisite(s) WMD1102 ET WSBIM1001 ET LANGL1854

- WMD1102 - Physique expérimentale et introduction mathématique aux sciences expérimentales (1e partie)
- WSBIM1001 - MATHEMATICAL METHODS IN BIOMEDICAL SCIENCES
- LANGL1854 - Medical English

WSBIM1211 "Méthodologie de la biologie cellulaire et moléculaire" has prerequisite(s) WMD1120 ET WMD1006 ET WSBIM1001 ET WMD1105

- WMD1120 - General biology and an experimental approach to biology
- WMD1006 - Cytology and general histology
- WSBIM1001 - MATHEMATICAL METHODS IN BIOMEDICAL SCIENCES
- WMD1105 - Chimie générale et minérale

WSBIM1220 "Neurobiologie" has prerequisite(s) WFARM1009

- WFARM1009 - Elements of general and functional anatomy

WSBIM1226 "Biologie moléculaire (dont l'épigénétique) et travaux dirigés" has prerequisite(s) WMD1120 ET WMD1106

- WMD1120 - General biology and an experimental approach to biology
- WMD1106 - ORGANIC CHEMISTRY

WSBIM1227 "Biologie moléculaire et biochimie intégrée" has prerequisite(s) WSBIM1001 ET WMD1106

- WSBIM1001 - MATHEMATICAL METHODS IN BIOMEDICAL SCIENCES
- WMD1106 - ORGANIC CHEMISTRY

WSBIM1293 "Stage de biologie cellulaire" has prerequisite(s) WMD1120 ET WMD1006 ET WMD1104 ET WSBIM1001

- WMD1120 - General biology and an experimental approach to biology
- WMD1006 - Cytology and general histology
- WMD1104 - Physique expérimentale et introduction mathématique aux sciences expérimentales (2e partie)
- WSBIM1001 - MATHEMATICAL METHODS IN BIOMEDICAL SCIENCES

WSBIM1302 "Virologie moléculaire" has prerequisite(s) WSBIM1227 ET WFARM1282

- WSBIM1227 - Molecular biology and integrated biochemistry
- WFARM1282 - General microbiology

WSBIM1305 "Introduction à la nutrition humaine" has prerequisite(s) WFARM1221S ET WSBIM1206

- WFARM1221S - Biochemistry and molecular biology
- WSBIM1206 - From nutrient to food

WSBIM1306 "Atelier d'histologie et d'anatomie pathologique" has prerequisite(s) WFARM1213S ET WSBIM1203

- WFARM1213S

Detailed programme per annual block

SBIM1BA - 1ST ANNUAL UNIT

- 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

SBIM1BA - 2ND ANNUAL UNIT

- 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...)

Majeure

Des atomes, des molécules et des systèmes qui les régissent

WFARM1221S	Biochemistry and molecular biology	Nathalie Delzenne (coord.)	FR [q1] [50h +10h] [6 Credits]

De la cellule à l'être humain

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]
WMDS1230	Biologie cellulaire médicale et expérimentale	Stefan Constantinescu (coord.) Christophe Pierreux Donatienne Tyteca	FR [q1] [30h +20h] [4 Credits]
WSBIM1201T	General physiology - General physiology (theory part, 40h)	Patrick Gilon (coord.)	FR [q1] [40h] [4 Credits]
WSBIM1201P	General physiology - General physiology (practical part, 25h)	Patrick Gilon (coord.)	FR [q1] [0h +25h] [2 Credits]
WSBIM1203	Special histology and hematology	Christophe Pierreux (coord.) Mieke Van Bockstal	FR [q1] [15h +15h] [3 Credits]
WFARM1282	General microbiology	Thomas Michiels	FR [q1] [20h +15h] [3 Credits]
WSBIM1200	Biomedical instrumental analysis and radiation protection	Giulio Muccioli	FR [q1] [30h +30h] [4 Credits] *> English-friendly*
WFARM1213S	Human physiology and basics of physiopathology - (Partim SBIM)	Olivier Feron (coord.)	FR [q2] [50h] [5 Credits] *> English-friendly*
WSBIM1293	Training course in cell biology	Laure Dumoutier (coord.) Julie Stockis	FR [q2] [30h] [2 Credits]

L'homme et la société : approche contextuelle

WFARM1247	Statistical data processing	Eugen Pircalabelu	FR [q2] [15h +15h] [3 Credits]

SBIM1BA - 3RD ANNUAL UNIT

- 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...)

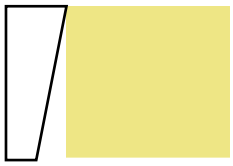
Majeure

Des atomes, des molécules et des systèmes qui les régissent

WPHAR1300	Pharmacology Part 1	Emmanuel Hermans Joseph Lorent	FR [q1] [30h +7.5h] [3 Credits] *> English-friendly*

De la cellule à l'être humain

WSBIM1310	Human embryology		



SBIM1BA - Information

Access Requirements

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

- For any secondary school diploma **from a European Union country**, the admission request must contain the equivalence of your diploma or, at the very least, proof of the filing of the equivalence request with the Wallonia-Brussels Federation (French Community of Belgium). For any information relating to obtaining an equivalence, please refer to the following site.
- For any secondary school diploma **from a country outside the European Union**, the admission application must contain the equivalence of your diploma issued by the Wallonia-Brussels Federation (French Community of Belgium). If you have a restrictive equivalence for the programme of your choice, in addition of it, you **must** have either the DAES or a certificate of successful completion of the examination giving access to 1st cycle studies when you submit your application

Access based on validation of professional experience

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

Useful Contact(s)

- Personne de contact de la 1re année de bachelier: Fabienne Titeux
- Personne de contact du cycle de bachelier (hors première): Guillaume Arnould
- Président de la commission d'enseignement de l'école de sciences biomédicales: Charles De Smet
- Conseiller aux études: Laure Dumoutier
- Responsable administrative de la faculté de pharmacie et de sciences biomédicales: Johanne Garny