SBEX2 Licence en sciences biomédicales (sciences biomédicales expérimentales) (Diploma of the Second Cycle (Licence) in Biomedical Sciences (experimental biomedical sciences))

Programme management

SBIM Ecole des sciences biomédicales
Academic Supervisors : Jean-Noël Octave et Jean-Christophe Renauld
Tel. 02 764 93 41
E-mai :l octave@nchm.ucl.ac.be
Contact person : Elisabeth Coppe
Tel. 02 764 50 34
E-Mai : coppe@smd.ucl.ac.be

Specific study objectives for the programme in Biomedical Sciences, orientation: Experimental Biomedical Sciences

The aim of the SBEX orientation is to train university graduates in sophisticated experimental research and development. The programme content focuses on complementary courses in all basic subjects and on initiation into experimental research through the importance of the thesis.
For all complementary information concerning the programme, please address the President of the programme management committee or the school's secetary's office.

Admission conditions for the "licence" programmes in Biomedical Sciences

The "licence" programmes are accessible to the following students :

- holders of the "candidat" diploma in Biomedical Sciences, Medecine, Pharmaceutical Sciences, Dental Sciences, Agronomic Sciences and Sciences (Biological, Chemical and Veterinary), from a Belgian or a Luxembourg university;
- holders of a university diploma juged to be equivalent in domains other than those mentioned above subject to analysis of the application ;
- holders of a non-university higher diploma ("gradué") in Chemistry, clinical chemistry, medical biology or dietetics subject to passing an admission exam and adding a possible complement of studies for 150 hours maximum ;
- those who have passed the first two years of the "candidature" in medecine, subject to the approval of the Committee of Biomedical Sciences and a complement of studies.

Admission procedure

The admission procedures and inscription at the University are detailed in the "General Information" pamphlet of the study Programme.

Programme content

SBEX21 First year of studies

Molecular approach

ANAT2120	A préciser (in French)	
BCHM1121	A préciser (in French)	
FARM2182	Molecular genetics of the procaryotes and concepts of genetic engineering[30h+15h] (4 credits) (in French)	Etienne De Plaen, Jean-Noël Octave (coord.)

Functional approach

DENT1260	Physiologie humaine[45h+15h] (6 credits) (in French)	Sonia Brichard, Nicole Morel
FARM2290	A préciser (in French)	

Morphological approach

ISTO1301	Histologie normale des systèmes (2e partie)[15h+25h] (3 credits) (in French)	Idesbald Colin (supplée Jean-François Denef), Jean-François Denef, Marie-Christine Many (coord.), Jean-Marie Scheiff

(partim)

Xenobiotics approach

ESP3620	Santé et environnement: risques chimiques[15h+7.5h] (2 credits) (in French)	Perrine Hoet
FARM2144	A préciser (in French)	

[partim pharmacokinetics : 15 hours]

MCBL1330	Medical Microbiology[50h+12.5h] (6 credits) (in French)	Michel Delmée, Patrick Goubau

[partim 35 hours + 12.5 hours : bacteriology, mycology, parasitology]

Quantitative approach

ESP3142	Epidemiology[22.5h+7.5h] (3 credits) (in French)	Yves Coppieters 't Wallant

"Public health or Human Sciences approach "

one of the 3 following courses subject to registering at the Biomedical Sciences secretary's office

MD2201	Christian ethics[15h] (2 credits) (in French)	Philippe Goffinet
MD2202	Questions de sciences religieuses: raison et foi[15h] (2 credits) (in French)	N.
MD2203	Questions of Religious Sciences : The Bible and his Message[15h] (2 credits) (in French)	Jean-Marie Van Cangh

and a language course

ANGL2454	Interactive English[30h] (3 credits)	Marc Piwnik, Albert Verhaegen

Options

60 hours minimum for the year, to be chosen in agreement with the promoter and the programme management committee.
Consult the recommended options list below.
Students with a non-university higher education diploma who have successfully completed their entrance exam may, depending on their previous studies, have to add a supplement of maximum 150 hours to their programme in the first or second cycle at the school, with the approval of the programme manager.

Apprenticeship

SBIM9212	Stage en laboratoire[30h] (3 credits) (in French)	Pascal Kienlen-Campard

The information concerning this apprenticeship is available at the secretary's office.
This apprenticeship takes place during the programme of the 2nd year of the first cycle of university studies ("candidature") in Biomedical Sciences, but can be validated at the end of the 1st year of the "licence" programme at the latest.

Thesis

C.f. SBEX22.

SBEX22 Second year of studies

Compulsory courses

BCMM2140	Biologie cellulaire et moléculaire des régulations hormonales[30h] (3 credits) (in French)	Stefan Constantinescu, Frédéric Lemaigre
SBIM2520	Workshop of molecular genetics[40h] (3 credits) (in French)	Patrick Jacquemin, Patrick Jacquemin

Options

120 hours minimum for the year, to be chosen with the agreement of the promoter and the programme management committee.

Thesis

This thesis consists of a personal scientific piece of work, in the domain of Experimental Biomedical Sciences carried out, at least in part, in one of the Faculty of Medecine laboratories under the scientific responsibility of a member of the permanent academic or scientific personnel of UCL. The writing of the thesis involves at least 90 hours of seminars, work meetings or supervised practical work, under the responsibility of the promoter. In the case where, after the agreement of the management committee, the thesis is carried out in another faculty, in a non-university centre of research, or in industry, a member of the management committee will intervene in the supervision of the thesis in the capacity of co-promoter.
The work on the thesis will begin as from the first year of the "licence" programme (SBIC 21). The domain in which it will be written will be communicated to the committee with the written agreement of the promoter by 30th November of the first year of the programme, at the latest.

Recommended options for the SBEX orientation

Molecular approach

BCHM2120	Compléments de biochimie[30h] (2 credits) (in French)	Luc Bertrand, Mark Rider (coord.)
BCMM2130	Biochemistry of Metabolic Diseases[30h] (2 credits) (in French)	Marie-Cécile Nassogne (coord.), Marie-Françoise Vincent

BCMM3140	Enzymologie clinique (avec travaux pratiques)[15h+15h] (in French)	N.
DENT1280	Biochimie spéciale[25h] (3 credits) (in French)	Françoise Bontemps, Françoise Bontemps (coord.), Françoise Bontemps (supplée Gaëtane Leloup), Gaëtane Leloup
FARM2190	A préciser (in French)	
FARM3160	Compléments de bactériologie moléculaire[15h+50h] (in French)	N.
FARM3180	Compléments de biochimie médicale[60h] (in French)	Vincent Haufroid, Teresinha Leal, Diane Maisin, Marianne Philippe, Marie-Françoise Vincent, Pierre Wallemacq (coord.)
FARM3333	Molecular biology applied to pharmacology[15h] (in French)	Jean-Noël Octave
GIM3101	Questions spéciales d'immunologie expérimentale[30h] (in French)	N.
SBIM3120	Atelier de biologie moléculaire et techniques du génie génétique[15h] (in French)	N.
Functional approach		
FARM3300	Pathologie infectieuse[29h] (in French)	Gerald Glupczynski, Paul Tulkens (coord.), Françoise Van Bambeke
FARM3320	Principe et méthodologie des dosages radioimmunologiques et radionucléidiques[15h+40h] (in French)	Diane Maisin, Marianne Philippe (coord.)
HEMA3100	Methods in Haematological Biology[20h+10h] (in French)	Bernard Chatelain, Véronique Deneys, Jean-Marie Scheiff (coord.)
MCBL3114	New aspects on the use of autoimmune serology[15h] (in French)	Jean-Paul TOMASI
Morphological approach		
Xenobiotics approach		
FARM3190	Compléments de chimie toxicologique et phytopharmacie[22.5h+45h] (in French)	Pierre Wallemacq
FARM3200	Radiochemistry, radiotoxicology et radiopharmacy[22.5h+60h] (in French)	Bernard Gallez
INTR2450	Toxicologie expérimentale des aliments et de la nutrition[22.5h+15h] (3 credits) (in French)	Pedro Buc Calderon, Nathalie Delzenne
MCBL3115	Complements in microbiology[60h+90h] (in French)	Michel Delmée, Jacques GIGI (coord.), Gerald Glupczynski, Jean-Paul TOMASI
MCBL3120	Complements in Virology[45h+45h] (in French)	Monique Bodéus, Patrick Goubau (coord.)
MDTR3211	Toxicologie industrielle[15h] (2 credits) (in French)	Dominique Lison
PHAR2170	Pharmacologie expérimentale[30h] (2 credits) (in French)	Jean-Marie Maloteaux
Quantitative approach		
INFM2111	Eléments d'informatique médicale[15h+15h] (2 credits) (in French)	N.
INFM2112	Informatique médicale[15h+15h] (2 credits) (in French)	Etienne De Clercq, Benoît Debande
SBIM2243	Digital processing of medical images[30h+15h] (4 credits) (in French)	Benoît Macq
Public Health and Human Sciences approach		
FILO1220	Epistemology 2: Introduction to philosophy of science[45h] (5 credits) (in French)	Tom Dedeurwaerdere, Bernard Feltz, Mark Hunyadi
SEHY3102	Contrôle de l'ambiance chimique de travail[15h] (in French)	Vincent Haufroid, Dominique Lison (coord.), Christian Lucion
Methodology courses		
SBIM3100	Elementary quantitative analysis[22.5h] (in French)	Bernard Tilquin
SBIM2111	Methodolgy of cell and molecular biology[22.5h] (3 credits) (in French)	Pierre Courtoy (coord.), Emile Van Schaftingen
BCMM3320	Pathological Histo- and Cytochemistry[30h] (in French)	Jean-François Denef, Yves Guiot (coord.), Jacques Rahier

[partim : 22,5 hours]

Positioning of the degree within the University cursus

Besides the programmes of the 3rd cycle and the PhD, organised by the School of Biomedical Sciences, the graduate students in Biomedical Sciences also have access to the programmes organised in other schools or institutes, including the following :
- specialised study diploma in Environment Sciences and Management (ENVI3DS)