

Faculty of Medicine



NUT 2

Licence en sciences biomédicales (nutrition humaine) (Diploma of the Second Cycle (Licence) in Biomedical Sciences (Human Nutrition))



Programme management

SBIM Ecole des sciences biomédicales

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Specific study objectives for the degree programme in Biomedical Sciences, orientation : Human Nutrition

The specific aim of this orientation is to provide the students with high level studies with a view to training managers in the subject of human nutrition in the agro-nutrition sector and in the domain of public health. The programme focuses on diseases arising from mal-nutrition, enteral and parenteral nutrition, physiopathology nutrition in children and the physiological and pharmacological control of food supplies.

For all complementary information concerning these studies, please address the vice-president of the programme management committee or the school secretary's office.

Admission conditions

These second cycle university studies are accessible to students who :

- hold the first university study cycle title ("candidature") in Biomedical Sciences, Medecine, Pharmaceutical Sciences, Dental Sciences, or Agronomical Sciences and Biological, Chemical and Veterinary Sciences, from a Belgian or Luxembourg university
- hold a university diploma judged as being equivalent in other domains than those listed above, subject to admission approval ;
- hold another diploma ("gradu ") in Chemistry, Clinical, Medical Biology or Dietetics, subject to passing an admission exam and adding, if necessary, complementary sessions totalling 150 hours maximum ;
- have succeeded in their first two university years ("candidature") in Medecine, subject to the agreement of the Committee of Biomedical Sciences and the adding of some complementary studies to their programme.

Admission procedure

The conditions and regular admission procedures are detailed on the web page "Access to Studies":

<http://www.ucl.ac.be/etudes/libres/acces.html>

General structure of the programme

This programme, which covers two and a half years of full-time studies, includes compulsory courses and options, participation in seminars and the writing of a thesis.

General important remarks :

- Each candidate must choose a *promoter* with the help of the programme Management Committee.
- The *choices of the compulsory courses* and the options are to be established in common accord with the promoter and submitted to the Management Committee for approval by 1st November, at the latest.
- Subject to the approval of the Committee, courses given at the UCL-Bruxelles and Louvain-la-Neuve, estimated as being equivalent in terms of training content, may replace courses of the programme.
- Subject to the approval of the Committee, a student may choose one or another course during the first year of the programme and have the mark of this exam recognised in the form of a *capitalisable unit* for the second year.
- Depending on the 1st cycle followed, a student may be able to benefit from *dispensations* for certain courses (equivalent to maximum 60 hours) or, on the contrary, have one or another course *complement* imposed on him.

- For the students accepted for the first year of the second cycle ("licence") on the basis of passing the 2nd year of the "candidature" in Medecine, complements in the following subjects are imposed : mathematics (SBIM1001), statistics (MED 2430 et ESP3420), instrumental biomedical analysis (SBIM 2100) and an apprenticeship in a laboratory (SBIM9212).

Programme content

NUT21 First year of studies

Molecular approach

<u>BCHM1121</u>	Biochimie humaine normale et pathologique[60h+16h] (8 credits) (in French)	Louis Hue, Frédéric Lemaigre
<u>INTR2440</u>	Exercices in Nutrition[30h] (3 credits) (in French)	Véronique BEAULOYE, Jean-Paul Buts (coord.), Nathalie Delzenne, Pierre Deprez, Etienne Sokal, Jean-Paul Thissen
<u>INTR2400</u>	Physiopathology of Nutrition in Infants[15h] (2 credits) (in French)	Jean-Paul Buts
<u>FARM2182</u>	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

<u>DENT1260</u>	Physiologie humaine[45h+15h] (6 credits) (in French)	Sonia Brichard, Nicole Morel
<u>FARM2290</u>	General pathophysiology[30h] (3 credits) (in French)	Olivier Feron, Michel Lambert (coord.)
<u>INTR2212</u>	Endocrine and nutrition-related diseases[30h] (3 credits) (in French)	Dominique Maiter, Jean-Paul Thissen
<u>INTR2220</u>	Medical Nutrition Therapy[15h+15h] (2 credits) (in French)	Jean-Paul Thissen
<u>INTR2390</u>	Artificial nutrition[15h] (2 credits) (in French)	DOMINIQUE HERMANS, Didier Moulin, Marc Reynaert, Jean-Paul Thissen (coord.)
<u>INTR2430</u>	Human nutrition[15h] (2 credits) (in French)	Jean-Paul Thissen
<u>ESP3540</u>	Nutrition[30h] (3 credits) (in French)	Sonia Brichard, Jean-Paul Thissen

Morphological approach

<u>ISTO1301</u>	Normal histology of systems (part 2)[15h+25h] (4 credits) (in French)	Idesbald Colin (supplée Jean-François Denef), Jean-François Denef, Marie-Christine Many (coord.), Jean-Marie Scheiff
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(partim)

Xenobiotic approach

<u>INTR2450</u>	Experimental toxicology related to food and nutrition[22.5h+15h] (3 credits) (in French)	Pedro Buc Calderon, Nathalie Delzenne
<u>INTR2410</u>	Physiological and pharmacological control of energy homeostasis[15h] (2 credits) (in French)	Sonia Brichard

Quantitative approach

<u>ESP3142</u>	Epidemiology[22.5h+7.5h] (3 credits) (in French)	Fabienne Nackers, Annie Robert (coord.)
"Public health or Human Sciences " approach		
<u>ESP3550</u>	Hygiène alimentaire[15h] (2 credits) (in French)	Jean-Marie Ketelslegers
<u>ESP3630</u>	Santé et environnement: risques biologiques[15h] (2 credits) (in French)	Michel Delmée
<u>INTR2380</u>	Législation en matière de denrées alimentaires[15h] (2 credits) (in French)	Jean-Marie Ketelslegers

one of the 3 following courses subjects to enrolment at the Biomedical Sciences secretary's office

<u>MD2201</u>	Christian ethics[15h] (2 credits) (in French)	Philippe Goffinet
<u>MD2202</u>	Faith and reason[15h] (2 credits) (in French)	N.
<u>MD2203</u>	Questions of Religious Sciences : The Bible and his Message[15h] (2 credits) (in French)	Jean-Marie Van Cangh

and the following language course

<u>ANGL2454</u>	Interactive English[30h] (3 credits)	Marc Piwnik, Albert Verhaegen
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Options

30 hours minimum for the year, to be chosen with the agreement of the promoter and the Programme Management Committee

Students with a non-university further education diploma, who pass the entrance exam, may have to add a supplement of 150 hours of lectures from the first or second cycle of studies to their programme, depending on their prior studies and in

agreement with the programme manager.

Apprenticeship

SBIM9212 Stage en laboratoire[30h] (3 credits) (in French) N.

Information concerning this apprenticeship is available at the secretary's office.

This work experience forms part of the 2nd year of the first cycle of studies ("candidature") in Biomedical Sciences, but can be validated at the end of the 1st year of the "licence" at the latest.

Thesis

C.f. "Nut 22".

NUT22 Second year of studies

Compulsory courses

<u>BCMM2130</u>	Biochemistry of Metabolic Diseases[30h] (2 credits) (in French)	Marie-Cécile Nassogne, Marie-Françoise Vincent
<u>NUT2020</u>	Experimental Basis of Nutrition[30h] (3 credits) (in French)	Véronique BEAULOYE, Jean-Paul Buts (coord.), Nathalie Delzenne, Pierre Deprez, Etienne Sokal

Options

60 hours minimum for the year, to be chosen in agreement with the promoter and the Programme Management Committee.

Thesis

The thesis consists of a personal scientific work, in the domain of nutrition or dietetics, carried out - at least in part - in a laboratory of the Faculty of Medicine under the scientific responsibility of a permanent member of the scientific or academic staff of UCL. The completion of a thesis involves at least 90 hours of seminars or work meetings and supervised practical tasks under the responsibility of the promoter. In the case where, with the agreement of the management committee, the thesis is to be carried out in another faculty, in a non-university research centre, or in a firm or factory, a member of the Faculty of Medicine will participate in the supervision of the thesis in the capacity of co-promoter.

The thesis work must begin right from the first year of the "licence" (NUT21). The domain in which it is to be written will be communicated to the Committee, with the written agreement of the promoter by the 30 November, at the latest, in the first year of "licence".

Options recommended for the NUT orientation

Molecular approach

<u>BRAL2102</u>	Nutritional biochemistry and human food needs[45h+0h] (3.5 credits) (in French)	Yvan Larondelle
<u>BCHM1210</u>	Biochimie générale[67.5h+30h] (8 credits) (in French)	Frederik Opperdoes, Emile Van Schaftingen
<u>BCHM2120</u>	Supplementary Biochemistry[30h] (2 credits) (in French)	Luc Bertrand, Mark Rider
<u>BCMM2140</u>	Molecular cell biology of hormonal regulation[30h] (3 credits) (in French)	Stefan Constantinescu, Frédéric Lemaigre
<u>BRAL2103</u>	Food chemistry[52.5h+37.5h] (7.5 credits) (in French)	Sonia Collin
<u>DENT1280</u>	Biochimie spéciale[25h] (3 credits) (in French)	Françoise Bontemps, Gaëtane Leloup (coord.)
<u>DENT2450</u>	General pathophysiology of diseases[45h] (4 credits) (in French)	Daniel Manicourt
<u>FARM2190</u>	Immunology, immunogenetics and immunopathology[30h] (3 credits) (in French)	Jean-Christophe Renault
<u>GEMO2110</u>	Molecular and medical genetics[30h] (2 credits) (in French)	Christine Dumoulin
<u>MEDI2200</u>	Gynecology-Obstetrics (including anatomopathology, neonatology and medical genetics)[124.5h] (10 credits) (in French)	Pierre Bernard, Jacques Donnez (coord.), Christine Dumoulin, Corinne Hubinont, Etienne Marbaix, Mireille SMETS, Jean-Luc SQUIFFLET, Gaston Verellen

(partim medical genetics, 10 hours)

<u>SBIM2520</u>	Workshop of molecular genetics[40h] (3 credits) (in French)	Patrick Jacquemin, Patrick Jacquemin
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Functional approach

<u>DENT2440</u>	ELEMENTS OF INTERNAL MEDICINE[45h] (4 credits) (in French)	Benoît Boland (coord.), Patrick Chenu, Dominique Vanpee
<u>MEDI2205</u>	Secteur endocrinologie (y compris la radiologie, l'anatomie pathologique et la pharmacologie)[76h] (6 credits) (in French)	Martin Buysschaert (coord.), Chantal Daumerie, Etienne DELGRANGE, Julian Donckier, Michel Hermans, Yves Horsmans, Marc Maes, Dominique Maiter, Jacques Rahier, Jean-Paul Thissen, Bernard Van Beers

[partim 25 hours, endocrinology and nutrition]

<u>INTR2440</u>	Exercices in Nutrition[30h] (3 credits) (in French)	Véronique BEAULOYE, Jean-Paul Buts (coord.), Nathalie Delzenne, Pierre Deprez, Etienne Sokal, Jean-Paul Thissen
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Xenobiotic approach

<u>BRTE2201</u>	Human and animal toxicology[22.5h] (2 credits) (in French)	Alfred Bernard
<u>FARM2230</u>	Complement of instrumental analysis[30h+15h] (in French)	Bernard Tilquin
<u>FARM2145</u>	Metabolism of the xénobiotiques ones[15h+22.5h] (3 credits) (in French)	Pedro Buc Calderon (coord.), Yves Horsmans, Roger-K. Verbeeck
<u>FARM2272</u>	Toxicology[30h] (3 credits) (in French)	Pedro Buc Calderon
<u>FARM2280</u>	Organotoxicity and cancer : molecular, cellular and functional aspects[30h+15h] (in French)	Pedro Buc Calderon, Olivier Feron, Philippe Hantson
<u>FARM2201</u>	Pharmaceutical approach in nutrition[30h+15h] (3.5 credits) (in French)	Nathalie Delzenne
<u>PHAR2130</u>	Medical Toxicology[22.5h] (3 credits) (in French)	Philippe Hantson

Quantitative approach

<u>INFM2112</u>	Medical Informatics[15h+15h] (2 credits) (in French)	Etienne De Clercq, Francis Roger France
<u>SBIM2243</u>	Digital processing of medical images[30h+15h] (4 credits) (in French)	Benoît Macq, Claude Veraart

Public Health and Human Sciences approach

<u>FILO1220</u>	Epistemology 2: Introduction to philosophy of science[45h] (5 credits) (in French)	Tom Dedeurwaerdere, Tom Dedeurwaerdere (supplée N.), Bernard Feltz
<u>ESP3210</u>	Introduction à l'organisation hospitalière[22.5h] (in French)	N.
<u>RPR2001</u>	Notions de base de radioprotection[10h+5h] (in French)	Vincent Grégoire (coord.), Patrick Smeesters
<u>ESP3620</u>	Santé et environnement: risques chimiques[15h+7.5h] (2 credits) (in French)	Perrine Hoet
<u>MDTR3211</u>	Toxicologie industrielle[15h] (2 credits) (in French)	Dominique Lison
<u>MED2180</u>	Hygiene in tropical countries[15h] (2 credits) (in French)	Myriam Malengreau
<u>ESP3060</u>	Nutrition et hygiène alimentaire des pays en voie de développement[30h] (in French)	Myriam Malengreau
<u>SEHY3102</u>	Contrôle de l'ambiance chimique de travail[15h] (in French)	Vincent Haufroid, Dominique Lison (coord.), Christian Lucion

Methodology courses

<u>SBIM3100</u>	Elementary quantitative analysis[22.5h] (in French)	Bernard Tilquin
<u>SBIM2111</u>	Methodolgy of cell and molecular biology[22.5h] (3 credits) (in French)	Pierre Courtoy (coord.), Emile Van Schaftingen
<u>BCMM3320</u>	Pathological Histo- and Cytochemistry[30h] (in French)	Jean-François Deneff, Yves Guiot (coord.), Jacques Rahier

[partim 22,5h]

Positioning of the degree within the University cursus

In addition to the programmes of the 3rd cycle (masters), and the PhD, organised by the School of Biomedical Sciences, the graduate students in Biomedical Sciences also have access to programmes organised in other schools or institutes including the following :

- specialised study diploma in Environmental Sciences and Management (ENVI3DS).