

Two-Year Master Program (120 ECTS)

First Year

Compulsory courses

BIOC0210-5	<i>Functional properties of biological macromolecules</i> - André MATAGNE - [10h Mon. WS]	20	20	[+]	3
BIOC0720-1	<i>Structure of biological macromolecules</i> - Paulette CHARLIER - [5h Mon. WS]	15	20	[+]	2
BIOC0721-1	<i>Optical properties of biological macromolecules</i> - Christian DAMBLON, André MATAGNE	15	20	-	2
BIOC0709-4	<i>Bioenergetics</i> - Pierre CARDOL, Fabrice FRANCK	20	20	-	2
GENE0001-4	<i>Genetic engineering</i> - Jacques DOMMES	20	20	-	2
BIOL0008-1	<i>Bioinformatics</i> - Denis BAURAIN	25	20	-	3
BIOL0009-1	<i>Molecular and cellular animal physiology</i> - Marc THIRY	15	20	-	2
BIOL0010-1	<i>Molecular and cellular plant physiology</i> - Patrick MOTTE	15	20	-	2
GENE0003-1	<i>Genomics</i> - Marc HANIKENNE	20	20	-	2
BIOC0003-2	<i>Biochemistry and physiology of the micro-organisms</i> - Bernard JORIS	20	20	-	2
AESS0320-1	<i>Initiation to biology didactics</i> - MarieNoëlle HINDRYCKX	20	20	-	2
STRA0038-1	<i>Seminars</i> - COLLÉGIALITÉ, Philippe THONART	5	-	-	1
SSTG0009-1	<i>Placement or practical integrated work (including seminars)</i> - COLLÉGIALITÉ, Patrick MOTTE - [10w Internship]	-	-	[+]	20

Optional courses

With the approval of the Board of Studies, choose one option from the following :

Biochemistry

BIOC0722-1	<i>Application of spectroscopic techniques to the study of folding and stability of proteins</i> - André MATAGNE - [10h Mon. WS]	20	-	[+]	3
CHIM0687-1	<i>Introduction to protein NMR</i> - Christian DAMBLON - [10h Mon. WS]	10	-	[+]	3
GENE0432-4	<i>Genetic and biochemical aspects of evolution</i> - Moreno GALLEN, Claire REMACLE	30	-	-	3
BIOC0723-1	<i>Complement of bioenergetics</i> - Pierre CARDOL, Fabrice FRANCK	25	-	-	3
CHIM0688-1	<i>Mass spectrometry</i> - Edwin DE PAUW - [10h Mon. WS]	15	-	[+]	3

Genetics

GENE0444-1	<i>Genetic engineering of pluricellular eukaryotes</i> - Jacques DOMMES	15	-	-	2
GENE0445-1	<i>Quantitative genetics</i> - Franck DEQUIEDT - [15h Mon. WS]	15	-	[+]	3
GENE0446-1	<i>Population genetics</i> - Johan MICHAUX, Claire REMACLE	25	-	-	3
GENE0441-2	<i>organelle genetics</i> - Claire REMACLE	15	-	-	2
GENE0432-4	<i>Genetic and biochemical aspects of evolution</i> - Moreno GALLEN, Claire REMACLE	30	-	-	3
BIOC0710-3	<i>Metabolic pathways</i> - Fabrice FRANCK	15	-	-	2

Physiology and developmental biology

BIOL0011-1	<i>Biology of animal development</i> - Bernard PEERS	25	-	-	3
BIOL0012-1	<i>Biology of plant development</i> - Claire PÉRILLEUX	25	-	-	3
BIOL0013-1	<i>Development of microorganisms</i> - Sébastien RIGALI	15	-	-	2
BIOL0014-1	<i>Dynamic molecular imaging</i> - Patrick MOTTE	15	-	-	2
BIOL0015-1	<i>Complement of molecular and cellular animal physiology</i> - Marc MULLER	20	-	-	3
BIOC0710-3	<i>Metabolic pathways</i> - Fabrice FRANCK	15	-	-	2

Microbiology and Immunology

MICR0002-1	<i>Immunology and vaccinology</i> - Jacques PIETTE, Catherine SADZOT	25	-	-	3
MICR0003-1	<i>Complement of microbiology : virology</i> - Jacques PIETTE	15	-	-	2
MICR0004-1	<i>Complement of microbiology : bacterial pathogenicity</i> - Bernard JORIS	15	-	-	2

MICR0005-1	<i>Complement of microbiology : Prostistology</i> - Denis BAURAIN	15	-	-	2
BIOL0013-1	<i>Development of microorganisms</i> - Sébastien RIGALI	15	-	-	2
MICR1713-1	<i>Extremophile microorganisms</i> - Georges FELLER, Moreno GALLEN, Annick WILMOTTE	15	-	-	2
CHIM0059-6	<i>Industrial Microbiology</i> - Philippe THONART	20	-	-	2

Second year

Compulsory courses

SMEM0019-1	<i>Final thesis</i> - COLLÉGIALITÉ	-	-	-	25
BIOL0016-2	<i>Introduction to intellectual property and quality insurance</i> - Nicole ANTHEUNIS, Jacques DOMMES - [15h Mon. WS]	15	-	[+]	3
BIOC0717-2	<i>Applied Bioinformatics</i> - Bernard JORIS	20	-	-	2

Choose one of the following focus :

Research Focus

Compulsory course

BBMC0020-1	<i>Final thesis (complement)</i> - COLLÉGIALITÉ	-	-	-	10
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Optional courses

With the agreement of the Board of Studies, choose 4 courses from the following :

BBMC0001-1	<i>Inter-academy thematic week</i> - COLLÉGIALITÉ - [1w SEM]	-	-	[+]	5
BBMC0001-2	<i>Inter-academy thematic week</i> - COLLÉGIALITÉ - [1w SEM]	-	-	[+]	5
BBMC0001-3	<i>Inter-academy thematic week</i> - COLLÉGIALITÉ - [1w SEM]	-	-	[+]	5
BBMC0001-4	<i>Inter-academy thematic week</i> - COLLÉGIALITÉ - [1w SEM]	-	-	[+]	5
BIOC0715-1	<i>Proteins structure and function</i> - Paulette CHARLIER, Mireille DUMOULIN	25	25	-	5
BIOC0716-1	<i>Antibiotic resistance</i> - Moreno GALLEN	25	25	-	5
BOTA0403-1	<i>Signal transduction pathways in plants</i> - Jacques DOMMES, Patrick MOTTE, Claire PÉRILLEUX	25	25	-	5
GENE0440-1	<i>Genetics and evolution</i> - Denis BAURAIN, Pierre CARDOL, Fabrice FRANCK, Claire REMACLE	25	25	-	5
MICR0713-1	<i>Extremophile microorganisms</i> - Georges FELLER, Moreno GALLEN, Annick WILMOTTE	25	25	-	5
BIOL0806-1	<i>Cell Biology and visualization methods</i> - Patrick MOTTE, Marc THIRY	25	25	-	5
MICR0716-1	<i>Immunology - Virology</i> - Jacques PIETTE, Catherine SADZOT	25	25	-	5
MICR0715-1	<i>Applied bacteriology</i> - Philippe THONART	25	25	-	5
BIOC9239-1	<i>Visualization and modeling of proteins</i> - Paulette CHARLIER, Frédéric KERFF, Eric SAUVAGE	25	25	-	5

Notice : The courses 'Protein Structures and Functions', 'Antibiotic Resistance', 'Signalling paths in plants', 'Extremophile Micro-organisms', 'Cell biology and visualisation methods' and 'Immunology-Virology' are offered in the framework of the inter-academy thematic week (mobility week).

Teaching focus

Compulsory courses

AESS0246-1	<i>Analysis of scholastic institutions and key-players, educational policies</i> - Dominique LAFONTAINE	15	-	-	1
AESS0248-1	<i>Elements of sociology of education</i> - JeanFrançois GUILLAUME	10	-	-	1
AESS0140-1	<i>Professional ethics and training to neutrality and citizenship</i> - Anne HERLA	25	-	-	2
AESS0202-1	<i>General didactics: course and exercises ; observation placements ; reflexive practices</i> - Annick FAGNANT - [10h Internship]	30	10	[+]	4
AESS0004-1	<i>Media education</i> - Jérémy HAMERS	15	-	-	1
AESS0249-1	<i>Interdisciplinary seminar</i> - Annick FAGNANT	15	-	-	1
AESS0143-1	<i>Educational Psychology of adolescents and young adults</i> - Annick FAGNANT	15	-	-	2
AESS0339-1	<i>Understand and manage the diversity of public schools</i> - Ariane BAYE	10	15	-	3
AESS1217-1	<i>Special didactics in biology : course and exercises (1st part)</i> -	40	-	-	3

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AESS1218-1	<i>Special didactics in biology : placements (1st part)</i>				3
	- <i>Observation placements</i> - MarieNoëlle HINDRYCKX - [10h Internship]	-	-	[+]	
	- <i>Teaching placements</i> - MarieNoëlle HINDRYCKX - [20h Internship]	-	-	[+]	
	- <i>Reflexive practical work</i> - MarieNoëlle HINDRYCKX	-	5	-	
AESS2217-1	<i>Special didactics in biology : course and exercises (2nd part) - MarieNoëlle HINDRYCKX</i>	35	-	-	4
AESS2218-1	<i>Special didactics in biology : placements (2nd part)</i>				5
	- <i>Teaching placements</i> - MarieNoëlle HINDRYCKX - [20h Internship]	-	-	[+]	
	- <i>Reflexive practical work</i> - MarieNoëlle HINDRYCKX	-	5	-	
	- <i>Extra-scholar teaching activities</i> - MarieNoëlle HINDRYCKX	-	10	-	

Professional focus in bioindustry

Compulsory courses

BIOC0007-1	<i>Industrial applications of biotechnologies</i> - Michel CRINE, Frank DELVIGNE	25	-	-	3
CHIM0689-1	<i>Introduction to polymers and surfactants : formulation and applications</i> - Christine JÉRÔME - Suppl : Antoine DEBUIGNE	25	-	-	3
BIOC0009-1	<i>Biotechnology applied to bioindustries</i> - Antoine CLINQUART, Philippe THONART	35	-	-	4
GEST3001-1	<i>People management and organisation</i> - Jocelyne ROBERT	24	24	-	3
GEST3005-2	<i>Accountancy and Finance</i> - Jacques BERWART	24	24	-	3
SSTG0033-1	<i>Business immersion</i> - COLLÉGIALITÉ - [8w Internship]	-	-	[+]	11
STRA0039-1	<i>Seminars and discussions given by professionals</i> - Philippe THONART	24	-	-	3

Professional focus in bioinformatics and modelling

Compulsory courses

INFO0097-2	<i>Introduction to linux programming</i> - Denis BAURAIN - [60h Mon. WS]	40	-	[+]	10
INFO0098-2	<i>Introduction to the modeling of biological systems</i> - Eric BULLINGER - [25h Mon. WS]	25	-	[+]	5
INFO0099-2	<i>Introduction to databases for biology</i> - Denis BAURAIN - [30h Mon. WS]	20	-	[+]	5
INFO0094-3	<i>Introduction to algorithms in bioinformatics</i> - Denis BAURAIN, Patrick MEYER - [30h Mon. WS]	20	-	[+]	5
INFO0115-2	<i>Introduction to the analysis of biological data</i> - Damien SIRJACOBS - [30h Mon. WS]	20	-	[+]	5