

Faculty of Medicine and Health Sciences
Master of Science in Biomedical Sciences

Language of instruction: English

Programme version 2

1 General Courses 31 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D002122 Laboratory Animal Science I <i>Katleen Hermans -- Department of Pathobiology, Pharmacology and Zoological Medicine</i>	5		1	A:1	150
2	D000236 Good Laboratory Practice <i>Bart Vandekerckhove -- Department of Diagnostic Sciences</i>	3		1	A:1	75
3	D012176 Bio-Ethics in Experimental Medicine <i>Philippe Deron -- Department of Head and Skin</i>	3		1	A:1	75
4	D012528 Cell and Gene Therapy <i>Bart Vandekerckhove -- Department of Diagnostic Sciences</i>	4		1	A:1	120
5	A003107 Advanced Academic English <i>Geert Jacobs -- Department of Linguistics</i>	3	UKV	1	A:1	90
6	D012513 Specialised Bio-informatics <i>Katleen De Preter -- Department of Biomolecular Medicine</i>	4		1	A:1	100
7	D012527 Good Clinical Practice - Clinical studies <i>Sylvie Rottey -- Department off Basic and Applied Medical Sciences</i>	3		1	A:2	90
8	D012514 Medical Seminars <i>Tania Maes -- Department of Internal Medicine and Pediatrics</i>	3		2	A:J	75
9	D002321 Innovation Management <i>Jan Demolder -- Department of Biomolecular Medicine</i>	3		2	A:1	75

2 Majors 30 credits

2.1 Major Nutrition and Metabolism 30 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012498 Human Nutrition Science and Pathology <i>XAVIER VERHELST -- Department of Internal Medicine and Pediatrics</i>	6		1	A:2	180
2	D012496 Method and Device Validation <i>Carolien Bonroy -- Department of Diagnostic Sciences</i>	3		1	A:2	75
3	D012504 Public Health Nutrition <i>Stefaan De Henauf -- Department of Public Health and Primary Care</i>	3		1	A:2	90
4	D012495 Medical Laboratory Diagnostics <i>Joris Delanghe -- Department of Diagnostic Sciences</i>	3		1	A:2	90
5	D012497 Methodology of Nutritional Research <i>Bruno Lapauw -- Department of Internal Medicine and Pediatrics</i>	5		1	A:2	150
6	D001877 Food Microbiology and Food Preservation <i>Andreja Rajkovic -- Department of Food Technology, Safety and Health</i>	6		2	A:1	180

2.1.1 Internship Major Nutrition and Metabolism 4 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012690 Internship Major Food Science <i>Debby Laukens -- Department of Internal Medicine and Pediatrics</i>	4		1	A:2	120

2.2 Major Neurosciences 30 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
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1	D012509	Structural Aspects of the Central Nervous System <i>Katharina D'Herde -- Department of Human Structure and Repair</i>	5	1	A:2	150
2	D012538	Functional Aspects of the Central Nervous System <i>Luc Leybaert -- Department of Basic and Applied Medical Sciences</i>	5	1	A:2	150
3	D012511	Neurobiology <i>Robrecht Raedt -- Department of Head and Skin</i>	5	1	A:2	150
4	D012512	Neurogenetics <i>Bart Dermaut -- Department of Biomolecular Medicine</i>	5	1	A:2	150
5	D012510	Clinical Neurology <i>Kristl Vonck -- Department of Head and Skin</i>	6	2	A:1	150

2.2.1 Internship Major Neurosciences

4 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012691 Internship Major Neurosciences <i>Sarah Vergult -- Department of Biomolecular Medicine</i>	4		1	A:2	120

2.3 Major Tissue Engineering and Regenerative Medicine

30 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012549 Stem Cell Biology and Reprogramming <i>BJORN HEINDRYCKX -- Department of Human Structure and Repair</i>	4		1	A:2	120
2	D012550 Clinical and Experimental Embryology <i>BJORN HEINDRYCKX -- Department of Human Structure and Repair</i>	3		1	A:2	90
3	D012548 Degeneration and Senescence <i>Mathieu Bertrand -- Department of Molecular Biology</i>	5		1	A:2	150
4	D012551 Biomaterials and Biocompatibility <i>Ruslan Dmitriev -- Department of Human Structure and Repair</i>	8		1	A:2	240
5	D001923 Tissue Engineering <i>Ruslan Dmitriev -- Department of Human Structure and Repair</i>	6		2	A:1	180

2.3.1 Internship Major Tissue Engineering and Regenerative Medicine

4 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012692 Internship Major Tissue Engineering and Regenerative Medicine <i>Ruslan Dmitriev -- Department of Human Structure and Repair</i>	4		1	A:2	120

2.4 Major Radiation Sciences

30 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012506 Radiochemistry and Radiopharmaceuticals <i>Filip De Vos -- Department of Pharmaceutical Analysis</i>	4		1	A:2	120
2	D012508 Radiation Dosimetry and Radioprotection <i>Ans Baeyens -- Department of Human Structure and Repair</i>	5		1	A:2	150
3	D012507 Radiotherapy: Technology and Patient Dosimetry <i>Werner De Gersem -- Department of Human Structure and Repair</i>	6		1	A:2	150
4	D012505 Medical Imaging <i>Klaus Bacher -- Department of Human Structure and Repair</i>	5		1	A:2	150
5	D012563 Radiobiology and Radiopathology <i>Anne Vral -- Department of Human Structure and Repair</i>	6		2	A:1	180

2.4.1 Internship Major Medical Radiation Sciences

4 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012693 Internship Major Medical Radiation Sciences <i>Klaus Bacher -- Department of Human Structure and Repair</i>	4		1	A:2	120

2.5 Major Medical Genetics

30 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012490 Cancer Genetics <i>Franki Speleman -- Department of Biomolecular Medicine</i>	5		1	A:2	150
2	D012547 Massively Parallel Sequencing Data-analysis <i>Pieter Mestdagh -- Department of Biomolecular Medicine</i>	3		1	A:2	75
3	D000652 Developmental Genetics and Gene Regulation <i>Elfride De Baere -- Department of Biomolecular Medicine</i>	6		1	A:2	180

4	D012701	Advanced Human Genetics <i>Sofie Symoens -- Department of Biomolecular Medicine</i>	6	1	A:2	180
5	D000852	Genetical Diagnostics <i>Kathleen Claes -- Department of Biomolecular Medicine</i>	6	2	A:1	180

2.5.1 Internship Major Medical Genetics 4 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012694 Internship Major Medical Genetics <i>Kathleen Claes -- Department of Biomolecular Medicine</i>	4		1	A:2	120

2.6 Major Immunity and Infection 30 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012531 Molecular Immunology <i>Tom Taghon -- Department of Diagnostic Sciences</i>	5		1	A:2	150
2	D012533 Molecular Virology <i>Philip Meuleman -- Department of Diagnostic Sciences</i>	5		1	A:2	150
3	D012530 Molecular Bacteriology <i>Piet Cools -- Department of Diagnostic Sciences</i>	5		1	A:2	150
4	D012529 Immunopathology <i>Hamida Hammad -- Department of Internal Medicine and Pediatrics</i>	5		1	A:2	150
5	D013094 Vaccinology <i>Isabel Leroux-Roels -- Department of Diagnostic Sciences</i>	6		2	A:1	180

2.6.1 Internship Major Immunity and Infection 4 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012695 Internship Major Immunity and Infection <i>Philip Meuleman -- Department of Diagnostic Sciences</i>	4		1	A:2	120

2.7 Major Systems Biology 30 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012702 Advanced Imaging and Image Analysis <i>Marleen Van Troys -- Department of Biomolecular Medicine</i>	5		1	A:2	150
2	D012554 Machine Learning Methods for Biomedical Data <i>Sven Degroeve -- Department of Biomolecular Medicine</i>	5		1	A:2	150
3	D012539 Protein Interaction Networks and Medical Applications <i>Sven Eyckerman -- Department of Biomolecular Medicine</i>	4		1	A:2	120
4	D012555 Genomics, Proteomics and Metabolomics <i>Kris Gevaert -- Department of Biomolecular Medicine</i>	6		1	A:2	180
5	D012184 Systems Biology <i>Kris Gevaert -- Department of Biomolecular Medicine</i>	6		2	A:1	150

2.7.1 Internship Major Systems Biology 4 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012696 Internship Major Systems Biology <i>Sven Degroeve -- Department of Biomolecular Medicine</i>	4		1	A:2	120

2.8 Major Cancer 30 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012491 Proliferation and Survival <i>Pieter Van Vlierberghe -- Department of Biomolecular Medicine</i>	5		1	A:2	150
2	D012492 Communication and Metastasis <i>Olivier De Wever -- Department of Human Structure and Repair</i>	5		1	A:2	150
3	D012493 Clinical Aspects of Cancer <i>Wim Ceelen -- Department of Human Structure and Repair</i>	5		1	A:2	150
4	D012490 Cancer Genetics <i>Franki Speleman -- Department of Biomolecular Medicine</i>	5		1	A:2	150
5	D012494 Precision Medicine in Cancer <i>Karim Vermaelen -- Department of Internal Medicine and Pediatrics</i>	6		2	A:1	180

2.8.1 Internship Major Cancer 4 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
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3 Elective Courses

Subscribe to 23 credit units from no less than 1 and no more than 2 modules from the following list. Subject to approval by the faculty.

3.1 Elective Courses: Limited List

Subscribe to no less than 5 and no more than 10 credit units from the following list, distributed over the first standard learning path as follows:

- 5 credit units in year 1,
- no more than 5 credit units in year 2.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012515 Pharmacology <i>Lindsey Devisscher -- Department off Basic and Applied Medical Sciences</i>	5			A:1	150
2	D000504 Laboratory Animal Science II <i>Katleen Hermans -- Department of Pathobiology, Pharmacology and Zoological Medicine</i>	5			A:1	150

3.2 Elective Courses: Free Choice

Subscribe to no less than 13 and no more than 18 credit units from the Ghent University Study Programmes, distributed over the first standard learning path as follows: no more than 18 credit units in year 2. Subject to approval by the faculty.

Subscribe to no less than 13 and no more than 18 credit units from het Ghent University Study Programmes, distributed over the first standard learning path as follows: no more than 18 credit units in year 2. Subject to approval by the faculty.

4 Work Placement 6 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D002303 Research Internship <i>Christophe Ampe -- Department of Biomolecular Medicine</i>	6		1	A:J	180

5 Master's Dissertation 30 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	D012185 Master's Dissertation	30			A:J	900

Teaching

When a course is not taught (solely) in the programme's language of instruction, the effectively used languages are indicated in square brackets following the cours name, using the following ISO codes:

bg: Bulgarian	de: German	es: Spanish	ja: Japanese	pl: Polish	sh: Kroatian/Serbian	zh: Chinese
cs: Czech	el: Greek	fr: French	nl: Dutch	pt: Portuguese	sl: Slovene	
da: Danish	en: English	it: Italian	no: Norwegian	ru: Russian	sv: Swedish	

Semester

Semesters are indicated by their number (1 or 2); semester 3 represents the summer period and J indicates a course spanning semesters 1 and 2. When a capital letter precedes a semester number, the course has multiple offerings. The letter indicates the offering concerned.

When a semester is shown in brackets, the course is not offered this year in the specific offering.

The offering frequency and first year of offering are indicated by the following codes:

a: bi-annually	c: annually, from 2022-2023	f: annually, from 2023-2024	i: annually, from 2024-2025
b: tri-annually	d: bi-annually, from 2022-2023	g: bi-annually, from 2023-2024	j: bi-annually, from 2024-2025
	e: tri-annually, from 2022-2023	h: tri-annually, from 2023-2024	k: tri-annually, from 2024-2025