

Study Programme

Academic year 2025-2026

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

Language of instruction: English

Programme version 6

Genera	I Courses			27	credits
Ir Course		CRDT	Ref MT1	Session	Study
D013626	Laboratory Quality Management and Assurance Peter Van Eenoo Department of Diagnostic Sciences Indicative price: € 0	3	1	A:1	75
D012176	Bio-Ethics in Experimental Medicine Katya De Groote Department of Internal Medicine and Pediatrics Indicative price: € 0	3	1	A:1	75
A003107	Advanced Academic English Geert Jacobs Department of Linguistics Indicative price: € 0	3	UKV 1	A:1	90
D012528	Cell and Gene Therapy Bart Vandekerckhove Department of Diagnostic Sciences Indicative price: unknown	4	1	A:1	120
D013628	Large Scale Analysis of Biomedical Data Katleen De Preter Department of Biomolecular Medicine Indicative price: unknown	4	1	A:1	100
D012527	Good Clinical Practice - Clinical studies Sylvie Rottey Department off Basic and Applied Medical Sciences Indicative price: € 0	3	1	A:2	90
D013627	Research Proposal Biomedical Sciences Philip Meuleman Department of Diagnostic Sciences Indicative price: unknown	4	1	A:2	120
D012514	Medical Seminars Tania Maes Department of Internal Medicine and Pediatrics Indicative price: € 0	3	2	A:J	75
2 Majors				26	credits
2.1 Major	Nutrition and Metabolism			26	credits
Ir Course		CRDT	Ref MT1	Session	Study
D012497	Methodology of Nutritional Research Bruno Lapauw Department of Internal Medicine and Pediatrics Indicative price: € 0	5	1	A:1	150
D012498	Human Nutrition Science and Pathology XAVIER VERHELST Department of Internal Medicine and Pediatrics Indicative price: € 0	6	1	A:2	180
D012496	Method and Device Validation Carolien Bonroy Department of Diagnostic Sciences Indicative price: € 0	3	1	A:2	75
D012504	Public Health Nutrition Stefaan De Henauw Department of Public Health and Primary Care Indicative price: unknown	3	1	A:2	90
D012495	Medical Laboratory Diagnostics Peter Van Eenoo Department of Diagnostic Sciences	3	1	A:2	90
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	indicative price: € 50				
6 D001877	Food Microbiology and Food Preservation Andreja Rajkovic Department of Food Technology, Safety and Health Indicative price: € 15	6	2	A:1	180
2.2 Major	Neurosciences			26	credits
Nr Course		CRDT R	ef MT1	Session	Study
1 D012509	O Structural Aspects of the Central Nervous System Indicative price: € 0	5	1	A:1	150
2 D012538	Functional Aspects of the Central Nervous System Alain Labro Department off Basic and Applied Medical Sciences Indicative price: unknown	5	1	A:2	150
3 D012511	Neurobiology Evelien Carrette Department of Head and Skin Indicative price: € 5	5	1	A:2	150
4 D012512	2 Neurogenetics Bart Dermaut Department of Biomolecular Medicine Indicative price: unknown	5	1	A:2	150
5 D012510	Clinical Neurology Kristl Vonck Department of Head and Skin Indicative price: unknown	6	2	A:1, B:2	150
2.3 Major	Tissue Engineering and Regenerative Medicine			26	credits
Nr Course		CRDT R	ef MT1	Session	Study
1 D012548	B Degeneration and Senescence Mathieu Bertrand Department of Molecular Biology Indicative price: unknown	5	1	A:1	150
2 D012549	Stem Cell Biology and Reprogramming BJORN HEINDRYCKX Department of Human Structure and Repair Indicative price: unknown	4	1	A:2	120
3 D012550	Clinical and Experimental Embryology BJORN HEINDRYCKX Department of Human Structure and Repair Indicative price: unknown	3	1	A:2	90
4 D012551	Biomaterials and Biocompatibility Ruslan Dmitriev Department of Human Structure and Repair Indicative price: unknown	8	1	A:2	240
5 D001923	Tissue Engineering Ruslan Dmitriev Department of Human Structure and Repair Indicative price: unknown	6	2	A:1	180
2.4 Major	Radiation Sciences			26	credits
Nr Course		CRDT R	ef MT1	Session	Study
1 D012508	Radiation Dosimetry and Radioprotection Klaus Bacher Department of Human Structure and Repair Indicative price: unknown	5	1	A:1	150
2 D012506	Radiochemistry and Radiopharmaceuticals Filip De Vos Department of Pharmaceutical Analysis Indicative price: unknown	4	1	A:2	120
3 D012507	Radiotherapy: Technology and Patient Dosimetry Werner De Gersem Department of Human Structure and Repair Indicative price: € 0	6	1	A:2	150
4 D012505	Medical Imaging Klaus Bacher Department of Human Structure and Repair Indicative price: unknown	5	1	A:2	150
5 D012563	Radiobiology and Radiopathology Ans Baeyens Department of Human Structure and Repair Indicative price: € 0	6	2	A:1	180
2.5 Major	Medical Genetics			26	credits
Nr Course		CRDT R	ef MT1	Session	Study
ri Codise			CIIVIT-I		- Study

Indicative price: € 50

1 D012701	Advanced Human Genetics Sofie Symoens Department of Biomolecular Medicine Indicative price: unknown	6	1	A:2	180
2 D012490	Cancer Genetics Kaat Durinck Department of Biomolecular Medicine Indicative price: € 0	5	1	A:2	150
3 D012547	Massively Parallel Sequencing Data-analysis Pieter Mestdagh Department of Biomolecular Medicine Indicative price: unknown	3	1	A:2	75
4 D000652	2 Developmental Genetics and Gene Regulation Elfride De Baere Department of Biomolecular Medicine Indicative price: unknown	6	1	A:1	180
5 D000852	2 Genetical Diagnostics Kathleen Claes Department of Biomolecular Medicine Indicative price: unknown	6	2	A:1	180
2.6 Major	Immunity and Infection			26	credits
Vr Course		CRDT R	tef MT1	Session	Study
1 D012529	9 Immunopathology Hamida Hammad Department of Internal Medicine and Pediatrics Indicative price: € 0	5	1	A:1	150
2 D01253 ²	Molecular Immunology Tom Taghon Department of Diagnostic Sciences Indicative price: € 0	5	1	A:2	150
3 D012533	Molecular Virology Philip Meuleman Department of Diagnostic Sciences Indicative price: unknown	5	1	A:2	150
4 D012530	 Molecular Bacteriology Piet Cools Department of Diagnostic Sciences Indicative price: € 0 	5	1	A:2	150
5 D013094	1 Vaccinology Isabel Leroux-Roels Department of Diagnostic Sciences Indicative price: unknown	6	2	A:1	180
2.7 Major	Systems Biology			26	credits
Vr Course		CRDT R	tef MT1	Session	Study
1 D012555	5 Genomics, Proteomics and Metabolomics Kris Gevaert Department of Biomolecular Medicine Indicative price: € 10	6	1	A:1	180
2 D012702	2 Advanced Imaging and Image Analysis Marleen Van Troys Department of Biomolecular Medicine Indicative price: € 0	5	1	A:2	150
3 D012554	Machine Learning Methods for Biomedical Data Sven Degroeve Department of Biomolecular Medicine Indicative price: unknown	5	1	A:2	150
4 D012539	Protein Interaction Networks and Medical Applications Sven Eyckerman Department of Biomolecular Medicine Indicative price: unknown	4	1	A:2	120
5 D012184	4 Systems Biology Tine Claeys Department of Biomolecular Medicine Indicative price: € 6	6	2	A:1	150
2.8 Major	Cancer			26	credits
Vr Course		CRDT R	lef MT1	Session	Study
1 D01249 ²	Panagiotis Ntziachristos Department of Biomolecular Medicine	5	1	A:1	150
	Indicative price: unknown				

3	D012493	Clinical Aspects of Cancer Wim Ceelen Department of Human Structure and Repair Indicative price: unknown	5	1	A:2	150
4	D012490	Cancer Genetics Kaat Durinck Department of Biomolecular Medicine Indicative price: € 0	5	1	A:2	150
5	D012494	Precision Medicine in Cancer Karim Vermaelen Department of Internal Medicine and Pediatrics Indicative price: unknown	6	2	A:1	180

3 Elective Courses

Subscribe to 31 credit units from no less than 2 and no more than 7 modules from the following list. Subject to approval by the faculty. Recommended: Students take 8 to 12 ECTS in the first master's year and 19 to 23 ECTS in the second year.

3.1 Elective Course List First Master's Year

Nr	Course		CRDT	Ref	MT1	Session	Study
1	D013531	Innovation Management Jan Demolder Department of Biomolecular Medicine Indicative price: unknown	5		1	A:2	150
2	D012577	Pharmacology [nl] Lindsey Devisscher Department off Basic and Applied Medical Sciences Indicative price: € 0	7		1	A:2	210
3	D013530	Laboratory Animal Science Katteen Hermans Department of Pathobiology, Pharmacology and Zoological Medicine Indicative price: € 0	6		1	A:1	180
4	H002476	Powerful Learning Environments [nl] Bram De Wever Department of Educational Studies Indicative price: € 50	6		1	A:1	180
5	C004114	Mathematics: Advanced Techniques [nl] Marnix Van Daele Department of Mathematics, Computer Science and Statistics Indicative price: € 10	6		1	A:2	180
6	C004223	Nuclear Physics Natalie Jachowicz Department of Physics and Astronomy Indicative price: € 45	4		1	A:2	120
7	A005503	Context and Nuance. A Critical Reflection on Current Topics [nl] July De Wilde Department of Translation, Interpreting and Communication Indicative price: € 0	6	UKV	1	A:1	180
8	D013207	Economic Perspectives on Health Nick Verhaeghe Department of Public Health and Primary Care Indicative price: € 29	3		1	A:1	90
9	J000454	Cutting Edge Technologies for Drug Delivery - Nanomedicines Stefaan De Smedt Department of Pharmaceutics Indicative price: € 0	3		1	A:2	90

3.2 Biomedical Researcher in Industry and Management

Nr	Course		CRDT	Ref MT1	Session	Study
1	D012577	Pharmacology [nl] Lindsey Devisscher Department off Basic and Applied Medical Sciences Indicative price: € 0	7	2	A:2	210
2	J000445	Regulatory Affairs Health Products Evelien Wynendaele Department of Pharmaceutical Analysis Indicative price: € 0	3	2	A:J	90
3	E092930	Translational Neuroscience Christian Vanhove Department of Electronics and Information Systems Indicative price: € 0	3	2	A:2	90
4	C002681	Advanced Programming in Bioinformatics Pieter De Bleser Department of Molecular Biology Indicative price: € 0	3	2		80
5	C003670	Biomolecular Production Methods Nico Callewaert Department of Biochemistry, Physiology and Microbiology	4	2	A:1	110

		<u>Indicative price: € 5</u>				
6	D013207	Economic Perspectives on Health Nick Verhaeghe Department of Public Health and Primary Care Indicative price: € 29	3	2	A:1	90
7	E076820	Project Management Mario Vanhoucke Department of Business Informatics and Operations Management Indicative price: € 75	6	2	A:2	180
8	J000453	Pharmaceutical Management Skills [nl] Evelien Wynendaele Department of Pharmaceutical Analysis Indicative price: € 0	3	2	A:2	90
9	D013530	Laboratory Animal Science Katleen Hermans Department of Pathobiology, Pharmacology and Zoological Medicine Indicative price: € 0	6	2	A:1	180
10	D013531	Innovation Management Jan Demolder Department of Biomolecular Medicine Indicative price: unknown	5	2	A:2	150
11	J000427	Special Nutrition [nl] Sarah De Saeger Department of Bio-analysis Indicative price: € 0	3	2	A:1	90
12	J000443	Pharmacoeconomics [nl] Barbara Claus Department of Pharmaceutical Analysis Indicative price: € 0	3	2	A:2	90
3.3	3 Biomed	dical Researcher in a Changing Society				

lr Course		CRDT	Ref	MT1	Session	Study
E092930	Translational Neuroscience Christian Vanhove Department of Electronics and Information Systems Indicative price: € 0	3		2	A:2	90
H002000	Modelling of Cognitive Processes Tom Verguts Department of Experimental Psychology Indicative price: € 0	5		2	A:1	150
H001992	P. Neurobiology of Affective Disorders Gilles Pourtois Department of Experimental Clinical and Health Psychology Indicative price: € 0	4		2	A:1	120
B000622	Medical Criminalistics [nl] Evy De Boosere Department of Diagnostic Sciences Indicative price: unknown	4		2	A:2	120
B001499	Forensic Psychology [nl] Lize Verbeke Department of Developmental, Personality and Social Psychology Indicative price: € 15	4		2	A:2	120
H001977	Coaching and Diversity [nl] Elisabeth De Schauwer Department of Special Education Indicative price: € 0	3	UKV	2	A:J	90
A005503	Context and Nuance. A Critical Reflection on Current Topics [nl] July De Wilde Department of Translation, Interpreting and Communication Indicative price: € 0	6	UKV	2	A:1	180
K001382	Strategic Communication Veroline Cauberghe Department of Communication Sciences Indicative price: € 45	5		2		150
H001010	Introduction Industrial Psychology [nl] Bart Wille Department of Developmental, Personality and Social Psychology Indicative price: € 55	5		2	C:1	150
0 B001497	Forensic Psychiatry [nl] Kurt Audenaert Department of Head and Skin Indicative price: € 0	4		2	B:1	120
1 B001637	Drug Phenomena [nl] Louis Favril Department of Criminology, Criminal Law and Social Law Indicative price: € 15	5		2	A:1	150
2 H002429	Neuropsychology [nl] Wim Fias Department of Experimental Psychology	5		2	A:2	150

3.4 Biomedical Exploration: Major Courses

Nr 1	D012498	Human Nutrition Science and Pathology XAVIER VERHELST Department of Internal Medicine and Pediatrics Indicative price: € 0	CRDT Ref MT1 6	Session A:2	Study 180
2	D012496	Method and Device Validation Carolien Bonroy Department of Diagnostic Sciences Indicative price: € 0	3	A:2	75
3	D012504	Public Health Nutrition Stefaan De Henauw Department of Public Health and Primary Care Indicative price: unknown	3	A:2	90
4	D012495	Medical Laboratory Diagnostics Peter Van Eenoo Department of Diagnostic Sciences Indicative price: € 50	3	A:2	90
5	D012497	Methodology of Nutritional Research Bruno Lapauw Department of Internal Medicine and Pediatrics Indicative price: $\in 0$	5	A:1	150
6	D012509	Structural Aspects of the Central Nervous System Indicative price: € 0	5	A:1	150
7	D012538	Functional Aspects of the Central Nervous System Alain Labro Department off Basic and Applied Medical Sciences Indicative price: unknown	5	A:2	150
8	D012511	Neurobiology Evelien Carrette Department of Head and Skin Indicative price: € 5	5	A:2	150
9	D012512	Neurogenetics Bart Dermaut Department of Biomolecular Medicine Indicative price: unknown	5	A:2	150
10	D012549	Stem Cell Biology and Reprogramming BJORN HEINDRYCKX Department of Human Structure and Repair Indicative price: unknown	4	A:2	120
11	D012550	Clinical and Experimental Embryology BJORN HEINDRYCKX Department of Human Structure and Repair Indicative price: unknown	3	A:2	90
12	D012548	Degeneration and Senescence Mathieu Bertrand Department of Molecular Biology Indicative price: unknown	5	A:1	150
13	D012551	Biomaterials and Biocompatibility Ruslan Dmitriev Department of Human Structure and Repair Indicative price: unknown	8	A:2	240
14	D012506	Radiochemistry and Radiopharmaceuticals Filip De Vos Department of Pharmaceutical Analysis Indicative price: unknown	4	A:2	120
15	D012508	Radiation Dosimetry and Radioprotection Klaus Bacher Department of Human Structure and Repair Indicative price: unknown	5	A:1	150
16	D012507	Radiotherapy: Technology and Patient Dosimetry Werner De Gersem Department of Human Structure and Repair Indicative price: € 0	6	A:2	150
17	D012505	Medical Imaging Klaus Bacher Department of Human Structure and Repair Indicative price: unknown	5	A:2	150
18	D012490	Cancer Genetics Kaat Durinck Department of Biomolecular Medicine Indicative price: € 0	5	A:2	150
19	D012547	Massively Parallel Sequencing Data-analysis Pieter Mestdagh Department of Biomolecular Medicine Indicative price: unknown	3	A:2	75
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20 D000652	Developmental Genetics and Gene Regulation Elfride De Baere Department of Biomolecular Medicine Indicative price: unknown	6	A:1	180
21 D012701	•	6	A:2	180
22 D012531	Molecular Immunology Tom Taghon Department of Diagnostic Sciences Indicative price: € 0	5	A:2	150
23 D012533	Molecular Virology Philip Meuleman Department of Diagnostic Sciences Indicative price: unknown	5	A:2	150
24 D012530	Molecular Bacteriology Piet Cools Department of Diagnostic Sciences Indicative price: € 0	5	A:2	150
25 D012529	Immunopathology Hamida Hammad Department of Internal Medicine and Pediatrics Indicative price: € 0	5	A:1	150
26 D012702	Advanced Imaging and Image Analysis Marteen Van Troys Department of Biomolecular Medicine Indicative price: € 0	5	A:2	150
27 D012554	Machine Learning Methods for Biomedical Data Sven Degroeve Department of Biomolecular Medicine Indicative price: unknown	5	A:2	150
28 D012539	Protein Interaction Networks and Medical Applications Sven Eyckerman Department of Biomolecular Medicine Indicative price: unknown	4	A:2	120
29 D012555	Genomics, Proteomics and Metabolomics Kris Gevaert Department of Biomolecular Medicine Indicative price: € 10	6	A:1	180
30 D012491	Proliferation and Survival Panagiotis Ntziachristos Department of Biomolecular Medicine Indicative price: unknown	5	A:1	150
31 D012492	Communication and Metastasis Olivier De Wever Department of Human Structure and Repair Indicative price: unknown	5	A:2	150
32 D012493	Clinical Aspects of Cancer Wim Ceelen Department of Human Structure and Repair Indicative price: unknown	5	A:2	150
33 D012490	Cancer Genetics Kaat Durinck Department of Biomolecular Medicine Indicative price: € 0	5	A:2	150
34 D001877	Food Microbiology and Food Preservation Andreja Rajkovic Department of Food Technology, Safety and Health Indicative price: € 15	6	A:1	180
35 D012510	Clinical Neurology Kristl Vonck Department of Head and Skin Indicative price: unknown	6	A:1	150
36 D001923	Tissue Engineering Ruslan Dmitriev Department of Human Structure and Repair Indicative price: unknown	6	A:1	180
37 D012563	Radiobiology and Radiopathology Ans Baeyens Department of Human Structure and Repair Indicative price: € 0	6	A:1	180
38 D013094	Vaccinology Isabel Leroux-Roels Department of Diagnostic Sciences Indicative price: unknown	6	A:1	180
3.5 Prepa	ring for EduMa			
Nr Course		CRDT Ref MT1	Session	Study

1	H002476	Powerful Learning Environments [nl] Bram De Wever Department of Educational Studies Indicative price: € 50	6	A:1	180
2	H002478	The Student: Development and Motivation [nl] Wim Beyers Department of Developmental, Personality and Social Psychology Indicative price: € 75	6	A:1	180
3	H002477	The Teacher within Class, School and Society [nl] Melissa Tuytens Department of Educational Studies Indicative price: € 50	6	A:2	180
4	H002587	Teaching Methodology: Health Sciences I [nl] Leen Haerens Department of Movement and Sports Sciences Indicative price: € 0	9	A:1	270

3.6 Medical Radiation Physics

Nr	Course		CRDT	Ref MT1	Session	Study
1	C004114	Mathematics: Advanced Techniques [nl] Marnix Van Daele Department of Mathematics, Computer Science and Statistics Indicative price: € 10	6	2	A:2	180
2	C004212	Python for Scientists Toon Verstraelen Department of Physics and Astronomy Indicative price: € 120	5	2	A:1	150
3	C004223	Nuclear Physics Natalie Jachowicz Department of Physics and Astronomy Indicative price: € 45	4	2	A:2	120
4	D002433	Detection and Measurement of Ionizing Radiation [nl] Klaus Bacher Department of Human Structure and Repair Indicative price: unknown	3	2	A:1	90
5	D013254	Radiation Protection, Safety and Legislation [nl] Klaus Bacher Department of Human Structure and Repair Indicative price: unknown	5	2	A:J	150

3.7 Elective Courses: Free Choice

6 credits

Subscribe to no more than 6 credit units from the study programmes of Ghent University, including the Ghent University Elective

Courses. Subject to approval by the faculty.

The maximum number of 6 ECTS credits for elective courses that can be freely chosen may be exceeded to a maximum of 12 ECTS credits, only for elective courses in support of the master's thesis or major. Moreover, the request to take more than 6 SP of free electives needs to be motivated on behalf of the curriculum committee, who will give its final approval, for all the included free electives within the package of maximal 12 SP.

Ghent University Elective Courses

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4 Work Placement			6 (credits
Nr Course	CRDT Re	f MT1	Session	Study
1 D013637 Major Internship Biomedical Sciences Kaat Durinck Department of Biomolecular Medicine Indicative price: unknown	6	1	A:J	180
5 Master's Dissertation 30 credits				
Nr Course	CRDT Re	f MT1	Session	Study
1 D012185 Master's Dissertation Indicative price: unknown	30	2	A:J	900

Programme related study costs

None

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 pt: Portuguese el: Greek fr: French nl: Dutch sl: Slovene da: Danish en: English it: Italian ru: Russian no: Norwegian 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 in 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 2026-2027 f: annually, from 2027-2028 i: annually, from 2028-2029 d: bi-annually, from 2026-2027 g: bi-annually, from 2027-2028 j: bi-annually, from 2028-2029 b: tri-annually h: tri-annually, from 2027-2028 k: tri-annually, from 2028-2029 e: tri-annually, from 2026-2027

Learning materials

The prices stated are indicative and subject to fluctuations.

The list of learning materials per course unit can be found in the course sheets.