

Faculty of Sciences

Master of Science in Bioinformatics -- Bioscience Engineering

Campus: UGent

Language(s) of instruction: English (Programme sheet as of: 2018)

Programme version 5 Valid as from the academic year 2020-2021 (VOORSTEL)

1 General Courses - CMBIOIBEalg 33.0 credits

1.1 Applied Bioinformatics Module - CMBIOIapplbioinf 33.0 credits

Nr	Course	CRDT	Ref	MT1	MT2	Session	Contact	Study
1	C003694 Statistical Genomics [en] Lieven Clement -- Department of Applied Mathematics and Computer Science	6.0				A:1	65.0	180
2	C003695 Applied High-throughput Analysis [en] Tim De Meyer -- Department of Data Analysis and Mathematical Modelling	6.0		1		A:1	60.0	180
3	C003696 Genome Biology [en] Klaas Vandepoele -- Department of Plant Biotechnology and Bioinformatics	6.0		1		A:2	60.0	180
4	C004000 Integrative Biology [en] Kathleen Marchal -- Department of Plant Biotechnology and Bioinformatics	3.0		1		A:2	30.0	80
5	C003698 Design Project [en] Jan Fostier -- Department of Information Technology	9.0		1		A:J	30.0	270
6	C004122 Capita Selecta in Bioinformatics [en] Kathleen Marchal -- Department of Plant Biotechnology and Bioinformatics	3.0				A:J	25.0	75

2 Courses Related to the Main Subject - CMBIOIBEafst

2.1 Bioscience Engineering Module - CMBIOIBEbioeng

Subscribe to 1 module from the following list.

Students of the Bachelor of Science in biochemistry and biotechnology (or an equivalent) subscribe for "Reorientation B.Sc. in Biochemistry and Biotechnology".

Students of the Bachelor of Science in bioscience engineering (or an equivalent) and students who successfully completed the preparatory course subscribe for "Reorientation B.Sc. in Bioscience Engineering".

Subject to approval by the curriculum committee.

Nr	Course	CRDT	Ref	MT1	MT2	Session	Contact	Study
1	I002612 Industrial Biotechnology [en] Wim Soetaert -- Department of Biotechnology	5.0		2		A:1	50.0	150
2	I002617 Bio-imaging and Image Informatics [en] Andre Skirtach -- Department of Biotechnology	4.0		2		A:1	40.0	120
3	I002618 Process Engineering 2 [nl, en] Paul Van der Meeren -- Department of Green Chemistry and Technology	5.0		2		A:1	50.0	150

2.1.1 Reorientation B.Sc. in Biochemistry and Biotechnology - CMBIOIBecbbcbt 13.0 credits

Nr	Course	CRDT	Ref	MT1	MT2	Session	Contact	Study
1	I002442 Process Engineering [nl] Jo Dewulf -- Department of Green Chemistry and Technology	4.0		1		A:1	40.0	120
2	I002440 Data Science [nl] Jan Verwaeren -- Department of Data Analysis and Mathematical Modelling	5.0		1		A:2	50.0	150
3	I002445 Modelling and Simulation of Biosystems [nl] Ingmar Nopens -- Department of Data Analysis and Mathematical Modelling	4.0		2		A:2	40.0	120

2.1.2 Reorientation B.Sc. in Bioscience Engineering - CMBIOISBbioeng 9.0 credits

Nr	Course	CRDT	Ref	MT1	MT2	Session	Contact	Study
1	I002611 Plant Biotechnology [en] Godelieve Gheysen -- Department of Biotechnology	5.0		2		A:2	50.0	150
2	I002615 Protein Chemistry [en] Els Van Damme -- Department of Biotechnology	4.0		2		A:1	40.0	120

2.2 Applied Mathematics and Informatics Module - CMBIOlappmathinfo

21.0 credits

Nr	Course	CRDT	Ref	MT1	MT2	Session	Contact	Study
1	I002642 Biological Databases [en] Wim Van Crielinge -- Department of Data Analysis and Mathematical Modelling	3.0		1		B:2	30.0	90
2	C002732 Programming for Bioinformatics [en] Pieter De Bleser -- Department of Molecular Biology	6.0		1		A:1	50.0	160
3	C003701 Selected Topics in Mathematical Optimization [en] Michiel Stock -- Department of Data Analysis and Mathematical Modelling	3.0				A:1	30.0	75
4	C003083 Bioinformatics Algorithms [en] Veerle Fack -- Department of Applied Mathematics and Computer Science	3.0		1		A:2	25.0	80
5	I002091 Predictive Modelling [en] Willem Waegeman -- Department of Data Analysis and Mathematical Modelling	6.0				A:2	60.0	150

2.3 Master's Dissertation - CMBIOIBEmasterproef

30.0 credits

Nr	Course	CRDT	Ref	MT1	MT2	Session	Contact	Study
1	C003714 Master's Dissertation [en] N. N.	30.0		2		A:J	300.0	900

3 Elective Courses - CMBIOIBEkeuze

Subscribe to no less than 1 and no more than 3 modules from the following list. Subject to approval by the faculty.

Subscribe to: 9 credit units (students with module Reorientation B.Sc. in Biochemistry and Biotechnology) or 13 credit units (students with module Reorientation B.Sc. in Bioscience Engineering).

3.1 Elective Course List - CMBIOIkeuzelijst

Subscribe to 6 credit units from the following list.

Nr	Course	CRDT	Ref	MT1	MT2	Session	Contact	Study
1	C004001 Internship [en] N. N.	6.0				A:1	60.0	150

3.2 Elective Course List - Entrepreneurship and Management - CMBIOIkeuzemanagement

Subscribe to no more than 8 credit units from the following list. Subject to approval by the faculty.

Nr	Course	CRDT	Ref	MT1	MT2	Session	Contact	Study
1	I002720 Consumer Behaviour and Marketing of Bio-industrial products [nl] Wim Verbeke -- Department of Agricultural Economics	5.0				A:2	50.0	150
2	I001967 Intellectual Property and Valorization [en] Benedikt Sas -- Department of Food Technology, Safety and Health	3.0				A:2	30.0	90
3	C000833 Project Management [nl] Mario Vanhoucke -- Department of Business Informatics and Operations Management	4.0				A:2	45.0	120
4	E076471 Dare to Start [en] Frank Gielen -- Department of Information Technology	3.0				A:2	36.0	90
5	I001949 Entrepreneurship [nl] Maikel Pellens -- Department of Marketing, Innovation and Organisation	3.0				A:2	30.0	75
6	E076460 Dare to Venture [en] Johan Verrue -- Department of Marketing, Innovation and Organisation	4.0				A:2	30.0	120

3.3 Elective Courses UGent - CHkeuzeugent

Subscribe to courses from the master programmes of Ghent University, including the Intensive Programmes of the Faculty of Bioscience Engineering.

Subscribe to no more than 5 credit units outside the domain of bioinformatics and other related sciences including the [Ghent University elective course list](#). Subject to approval by the curriculum committee.