Study Programme

Academic year 2023-2024

Faculty of Economics and Business Administration

Master of Science in Business Engineering -- Data Analytics

Language of instruction: English

Programme version 9

1 General Courses — 50 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	F000442	Strategic Management	6		1	A:1	180
		Johan Verrue -- Department of Marketing, Innovation and Organisation					
2	F000896	Technology for the Circular Economy	5		1	A:2	150
		Ramon Ganigué -- Department of Biotechnology					
3	F000671	Human Resources Management	5		1	A:2	150
		Dirk Buyens -- Department of Marketing, Innovation and Organisation					
4	F000124	System Dynamics	5		1	A:1	150
		Mia Loccufier -- Department of Electromechanical, Systems and Metal Engineering					
5	F000699	Business-to-business Marketing	6		1	A:1	180
		Steve Muylle -- Department of Marketing, Innovation and Organisation					
6	F000700	Managing Service Organisations	4		2	B:2	120
		Paul Gemmel -- Department of Marketing, Innovation and Organisation					
7	F000897	Enterprise Architecture	4		2	A:1	120
		Geert Poels -- Department of Business Informatics and Operations Management					
8	F000892	Innovation Management	3		2	A:2	90
		Katrien Verleye -- Department of Marketing, Innovation and Organisation					
9	F000778	Business Process Management	4		1	A:2	120
		Frederik Gailly -- Department of Business Informatics and Operations Management					
10	F000704	Financing High Tech Entrepreneurial Companies	4		2	B:1	120
		Miguel Meuleman -- Department of Accounting, Corporate Finance and Taxation					
11	F000891	Technology Entrepreneurship	4		2	A:1	120
		Johan Verrue -- Department of Marketing, Innovation and Organisation					

2 Courses Related to the Main Subject — 34 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	F000799	Social Media and Web Analytics	6		1	A:2	180
		Matthias Bogaert -- Department of Marketing, Innovation and Organisation					
2	F000712	Analytical Customer Relationship Management	6		1	A:1	180
		Dirk Van den Poel -- Department of Marketing, Innovation and Organisation					
3	F000942	Machine Learning	6		1	A:1	180
		Dries Benoit -- Department of Marketing, Innovation and Organisation					
4	F000941	Simulation Modelling and Analysis	4		1	A:2	120
		Broos Maenhout -- Department of Business Informatics and Operations Management					
5	F000801	Predictive and Prescriptive Analytics	6		2	A:2	180
		Matthias Bogaert -- Department of Marketing, Innovation and Organisation					
6	F000802	Big Data	6		2	A:1	180
		Dirk Van den Poel -- Department of Marketing, Innovation and Organisation					

3 Elective Courses — 12 credits

Subscribe to 12 credit units from no less than 1 and no more than 3 modules from the following list. Subject to approval by the faculty.
Distributed over the first standard learning path as 6 credit units in year 1 and 6 credit units in year 2, over the second standard learning path as 6 credit units in year 2 and 6 credit units in year 3.

3.1 Elective Advanced Courses

Subscribe to no more than 12 credit units from the following list.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	F000683	Investment Analysis Michael Frömmel -- Department of Economics	6			A:1	180
2	F000898	Business Valuation Leentje Moortgat -- Department of Accounting, Corporate Finance and Taxation	4			A:2	120
3	F001006	Management Accounting and Control Sophie Maussen -- Department of Accounting, Corporate Finance and Taxation	4			A:2	120
4	F000717	Financial Risk Management Frank De Jonghe -- Department of Economics	6			A:1	180
5	F000706	Advanced Production Management Veronique Limère -- Department of Business Informatics and Operations Management	6			A:2	180
6	F000899	Quality Management Dries Goossens -- Department of Business Informatics and Operations Management	6			B:1	180
7	F000836	Decision Making for Business Mario Vanhoucke -- Department of Business Informatics and Operations Management	6			A:1	180
8	F000710	Supply Chain Management Louis-Philippe Kerkhove -- Department of Business Informatics and Operations Management	6			A:2	180
9	F000676	Econometrics: Time Series Analysis Gerdie Everaert -- Department of Economics	6			A:1	180
10	F000920	Networks in Socio-Economic Systems Luis Enrique Correa da Rocha -- Department of Economics	6			A:2	180
11	F000707	Project Management Mario Vanhoucke -- Department of Business Informatics and Operations Management	6			A:1	180
12	F000918	Deep Learning Seppe vanden Broucke -- Department of Business Informatics and Operations Management	6			A:2	180
13	F000889	Internship [nl, en] Frederik Gailly	6			A:J	180
14	E016330	Artificial Intelligence Aleksandra Pizurica -- Department of Telecommunications and Information Processing	6			A:1	180
15	I002700	Clean Technology Sophie Huysveld -- Department of Green Chemistry and Technology	5			A:1	150
16	E065460	Rational Use of Materials Tom Depover -- Department of Materials, Textiles and Chemical Engineering	5			A:1	150
17	E004153	Heuristics and Search Methods Sidharta Gautama -- Department of Industrial Systems Engineering and Product Design	3			A:1	90
18	E076380	Methods Engineering and Work Measurement Dieter Claeys -- Department of Industrial Systems Engineering and Product Design	6			A:2	180
19	E004720	Network Modelling and Design Mario Pickavet -- Department of Information Technology	4			B:2	120
20	E076820	Project Management Mario Vanhoucke -- Department of Business Informatics and Operations Management	6			A:2	180
21	E060240	Quality Engineering and Industrial Statistics Stijn De Vuyst -- Department of Industrial Systems Engineering and Product Design	6			A:2	180
22	E011320	Queueing Theory Joris Walraevens -- Department of Telecommunications and Information Processing	6			A:1	180
23	E005770	Total Plant Automation	6				180
24	E018130	NoSQL Databases Antoon Bronselaer -- Department of Telecommunications and Information Processing	3			A:2	90
25	E018700	Data Quality Antoon Bronselaer -- Department of Telecommunications and Information Processing	3			A:1	90

3.2 Elective General Courses

Subscribe to no more than 12 credit units from the following list.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	F000681	Economics of Banking Rudi Vander Vennet -- Department of Economics	6			A:1	180

Nr	Course		CRDT	Ref	MT1	Session	Study
2	F000764	Economics of Financial Markets	6			A:1	180
		William De Vijlder -- Department of Economics					
3	F000687	Advanced Econometrics: Non-Linear Methods	6			A:2	180
		Gerdie Everaert -- Department of Economics					
4	F000118	Advanced Microeconomics: Game Theory and Asymmetric Information	6			A:1	180
		Dirk Van de gaer -- Department of Economics					
5	F000628	Microeconomics: Decision Theory	6			B:1	180
		Dirk Van de gaer -- Department of Economics					
6	F000196	Monetary Economics [nl]	5			A:1	150
		Gert Peersman -- Department of Economics					
7	F000935	Ecological Economics	6			A:2	180
		Brent Bleys -- Department of Economics					
8	F000653	Insurances [nl]	6			A:1	180
		Thomas Verheyen -- Department of Interdisciplinary Study of Law, Private Law and Business Law					
9	F000640	Audit	6			A:1	180
		Anschi De Wolf -- Department of Accounting, Corporate Finance and Taxation					
10	F000688	Management Control	6				180
		Sophie Hoozée -- Department of Accounting, Corporate Finance and Taxation					
11	F000852	Taxation [nl]	5			A:2	150
		Annelies Roggeman -- Department of Accounting, Corporate Finance and Taxation					
12	F000694	Advanced Financial Statement Analysis	6			A:1	180
		Line Vyvey -- Department of Accounting, Corporate Finance and Taxation					
13	F000696	Market Research Methods	6			A:1	180
		Hendrik Slabbinck -- Department of Marketing, Innovation and Organisation					
14	F000859	Corporate Social Responsibility [nl]	3			A:2	90
		Saskia Crucke -- Department of Marketing, Innovation and Organisation					
15	B001339	Law and Economics [nl]	3			A:2	90
		Ben Depoorter -- Department of Interdisciplinary Study of Law, Private Law and Business Law					
16	F000933	Environmental Economics [nl]	4			A:1	120
		Johan Albrecht -- Department of Economics					
17	E075310	Ethics, Engineering and Society [nl]	3			A:2	90
		Seppe Segers -- Department of Philosophy and Moral Sciences					
18	D012535	Health Economics [nl]	5			A:1	150
		Dominique Vandijck -- Department of Public Health and Primary Care					
19	H001977	Coaching and Diversity [nl]	3	UKV		A:J	90
		Elisabeth De Schauwer -- Department of Special Education					
20	D002354	Movement and Sports: Now and Later [nl]	3	UKV		A:2	90
		Veerle Segers -- Department of Movement and Sports Sciences					
21	K001339	Sustainability Thinking [nl]	5	UKV		A:J	150
		Thomas Block -- Department of Political Sciences					

3.3 Elective Courses Academic Teacher Education

Subscribe to no more than 12 credit units from the following list.

Nr	Course		CRDT	Ref	MT1	Session	Study
1	H002169	Powerful Learning Environments [nl]	6			A:1	180
		Bram De Wever -- Department of Educational Studies					
2	H002196	Classroom Management and Reflection [nl]	4			A:2	120
		Melissa Tuytens -- Department of Educational Studies					
3	H002197	The Teacher within School and Society [nl]	4			A:1	120
		Melissa Tuytens -- Department of Educational Studies					
4	H002198	Psychology of Adolescence [nl]	4			A:1	120
		Wim Beyers -- Department of Developmental, Personality and Social Psychology					

4 Master's Dissertation — 24 credits

Nr	Course		CRDT	Ref	MT1	Session	Study
1	F000612	Master's Dissertation	24		2	A:J	720

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 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 2024-2025	f: annually, from 2025-2026	i: annually, from 2026-2027
b: tri-annually	d: bi-annually, from 2024-2025	g: bi-annually, from 2025-2026	j: bi-annually, from 2026-2027
	e: tri-annually, from 2024-2025	h: tri-annually, from 2025-2026	k: tri-annually, from 2026-2027