

Faculty of Economics and Business Administration

Master of Science in Business Engineering -- Data Analytics

Language of instruction: English

Programme version 7

## 1 General Courses 50 credits

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

## 2 Courses Related to the Main Subject 34 credits

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

## 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:1	120
3	F000020 Management Accounting [nl] Sophie Hoozée -- Department of Accounting, Corporate Finance and Taxation	4			A:1	120
4	F000717 Financial Risk Management Frank De Jonghe -- Department of Economics	6			A:1	180
5	F000706 Advanced Production Management Tarik Aouam -- 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			A:2	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 Tarik Aouam -- 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 Joni Dambre -- Department of Electronics and Information Systems	6			A:2	180
13	F000889 Internship [nl, en] Ignace De Beelde	6			A:J	180
14	E016330 Artificial Intelligence Aleksandra Pizurica -- Department of Telecommunications and Information Processing	6			A:1	180
15	I002700 Clean Technology Pieter Nachtergaele -- 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	E004152 Heuristics and Search Methods Sidharta Gautama -- Department of Industrial Systems Engineering and Product Design	4			A:1	120
18	E076380 Methods Engineering and Work Measurement Dieter Claeys -- Department of Industrial Systems Engineering and Product Design	6			A:1	180
19	E018441 Advanced Databases [nl] Antoon Bronselaer -- Department of Telecommunications and Information Processing	6			A:1	180
20	E076340 Information Technology and Data Processing Jan Aelterman -- Department of Telecommunications and Information Processing	6			B:2	180
21	E004720 Network Modelling and Design Mario Pickavet -- Department of Information Technology	4			B:2	120
22	E076820 Project Management Mario Vanhoucke -- Department of Business Informatics and Operations Management	6			A:2	180
23	E060240 Quality Engineering and Industrial Statistics Stijn De Vuyst -- Department of Industrial Systems Engineering and Product Design	6			A:2	180
24	E011320 Queueing Theory Joris Walraevens -- Department of Telecommunications and Information Processing	6			B:1	180
25	E017822 Software Architecture Frank Gielen -- Department of Information Technology	4				120
26	E005770 Total Plant Automation Johannes Cottyn -- Department of Industrial Systems Engineering and Product Design	6			A:2	180

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

### 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] Bram De Wever -- Department of Educational Studies	6			A:1	180
2	H002196 Classroom Management and Reflection [nl] Melissa Tuytens -- Department of Educational Studies	4			A:2	120
3	H002197 The Teacher within School and Society [nl] Melissa Tuytens -- Department of Educational Studies	4			A:1	120
4	H002198 Psychology of Adolescence [nl] Wim Beyers -- Department of Developmental, Personality and Social Psychology	4			A:1	120

## 4 Master's Dissertation

24 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
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### 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 course name, using the following ISO codes:

bg: Bulgarian	de: German	es: Spanish	ja: Japanese	pl: Polish	sh: Croatian/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