

MASTER OF SCIENCE IN BUSINESS ENGINEERING (FINANCE)

120 ECTS CREDITS - LANGUAGE: ENGLISH

WHAT

The Master of Science in Business Engineering is a multidisciplinary programme that focuses on (data-driven) management science, business processes and technology. These three disciplines are educated throughout the two-year master programme through theoretical lectures, practical case studies and business games as well as guest speakers and company projects. The master's programme teaches these disciplines both in a theoretical and a practice-oriented way.

While the Bachelor of Science in Business Engineering mainly focuses on providing a (quantitative) foundation, the Master's programme studies different aspects of the subdisciplines mentioned above in a more applied manner. The specific content of the study that links business analytics and business processes with technology helps to translate processes into business models, and organisational structures into information systems. By means of data analysis techniques, conceptual or mathematical modelling techniques and decision-making techniques, we study the business operations within a single company and between companies in a supply chain thoroughly. Such business operations include the processes and the logistical flow of products, services and/or information. These techniques support the efficient organisation of resources in companies for them to work towards their common goals and objectives. By way of specialisation, students can choose one of three main subjects: Data Analytics, Finance, or Operations Management.

The **Finance** main subject analyses the financial decisions of businesses, as well as of investment managers who may invest in shares or derived financial instruments. A business engineer's quantitative background enables them to draw up complex financial models, for example with regard to risk management in businesses, the planning of financial requirements, optimal investment portfolios, etc.

STRUCTURE

The link between management science, business processes and technology is a recurring feature throughout the Master's curriculum. In this respect, the focus is on the management of an organisation, its resources and its business processes in the form of course units like Strategic Management, Human Resource Management, Business Process Management, etc.

Our programme's technology component is widened by course units such as Technology for the Circular Economy and System Dynamics. The interrelation between these technology course units and business management is treated in the course units such as Financing High Tech Entrepreneurial Companies, Technology Entrepreneurship, Innovation Management and Enterprise Architecture.

Different principles from management science are discussed and maintained throughout these course units, including mathematical modelling, simulation, statistics and numerical algorithms to improve an organisation's ability to pursue rational and meaningful management decisions

In addition to the (domain) Master's programme described above, you can also choose a Master's Programme in Teaching (in Dutch: Educatieve Master). Find out more at www.ugent.be/educatieve-master (in Dutch).

It is possible to participate in a double degree programme with the Université de Liège or the University of Porto or the University of Tartu (Estonia). In a double degree programme students receive a degree of both the home and the host university.

LABOUR MARKET

A Business Engineering diploma leads to various career paths. With their strong foundation in business economics, their broad knowledge of new technologies and their strong focus on quantitative analytics in production, services, logistics, marketing and finance, business engineers understand how to improve the efficiency in the various parts of a company's logistic chain better than anyone else. Our graduates end up in jobs where they deal with managing production processes and services, with analytical and quantitative tasks to improve its a company's overall efficiency. As a bridge builder between business economists and engineers, they are able to optimise the decision-making process at various levels of the company, ranging from operational decisions on the work floor to strategic decisions at board level. As economic agents, they are familiar with the company processes in order to perform cost price calculations, but as engineers they also have a much wider view of the company's logistic processes and its potential for improvement. With their essential knowledge of the latest technologies and their strong background in business analytics, business engineers rely on the state-of-the-art ICT concepts to optimise the

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business processes. This essential skill is embedded in almost every course unit in the Business Engineering curriculum and will be key in today's modern international business strategy. Graduates typically enter the financial sector in roles such as financial analyst, investment banker, or corporate finance consultant, where they guide companies in investment decisions and financial planning. Others focus on risk management, asset management, or fintech innovations, leveraging technology to enhance financial services.

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TOELATINGSVOORWAARDEN VOOR HOUDERS VAN EEN VLAAMS DIPLOMA

1 Rechtstreeks:

- Bachelor handelingenieur
- Bachelor handelingenieur in de beleidsinformatica
- Bachelor in de toegepaste economische wetenschappen: handelingenieur
- Bachelor in de toegepaste economische wetenschappen: handelingenieur in de beleidsinformatica
- Bachelor handelingenieur
- Bachelor handelingenieur in de beleidsinformatica
- Bachelor in de toegepaste economische wetenschappen: handelingenieur in de beleidsinformatica
- Bachelor of Business and Information Systems Engineering
- Master of Business Engineering: Business and Technology

2 Na het met succes voltooien van een voorbereidingsprogramma:

MIN 29 SP - MAX 61 SP

- a Engelstalig programma
 - Bachelor in de economische wetenschappen
 - Bachelor in de handelswetenschappen
 - Bachelor in de sociaal-economische wetenschappen
 - Bachelor in de toegepaste economische wetenschappen
 - Bachelor in de toegepaste economische wetenschappen: bedrijfskunde
 - Bachelor in de toegepaste economische wetenschappen: economisch beleid
 - Bachelor of Business Administration
 - Educatieve master in de economie, afstudeerrichting: economische wetenschappen
 - Educatieve master in de economie, afstudeerrichting: handelswetenschappen
 - Educatieve master in de economie, afstudeerrichting: toegepaste economische wetenschappen
 - Master in de economische wetenschappen
 - Master in de handelswetenschappen
 - Master in de sociaal-economische

wetenschappen

- Master in de toegepaste economische wetenschappen
- Master in de toegepaste economische wetenschappen: bedrijfskunde
- Master in de toegepaste economische wetenschappen: economisch beleid
- Master of Business Administration
- Master of Business Economics
- Master of Economics

MIN 40 SP - MAX 69 SP

- a Engelstalig programma
 - Bachelor in de bio-ingenieurswetenschappen
 - Bachelor in de computerwetenschappen
 - Bachelor in de informatica
 - Bachelor in de wiskunde
 - Bachelor of Environmental Technology
 - Bachelor of Food Technology
 - Bachelor of Molecular Biotechnology
 - Een diploma van een opleiding 'Bachelor of Science in de industriële wetenschappen'
 - Een diploma van een opleiding 'Bachelor of Science in de ingenieurswetenschappen' (met inbegrip van 'architectuur')
 - Een diploma van een opleiding 'Master of Bioscience Engineering' leidend tot de titel van 'bio-ingenieur'
 - Een diploma van een opleiding 'Master of Science in de bio-ingenieurswetenschappen' leidend tot de titel van 'bio-ingenieur'
 - Een diploma van een opleiding 'Master of Science in de industriële wetenschappen'
 - Een diploma van een opleiding 'Master of Science in de ingenieurswetenschappen' leidend tot de titel van 'burgerlijk ingenieur' (incl. architectuur)
 - Master in de informatica
 - Master in de ingenieurswetenschappen: architectuur
 - Master in de wiskunde

ADMISSION REQUIREMENTS FOR INTERNATIONAL DEGREE STUDENTS

