MASTER OF SCIENCE IN BUSINESS ENGINEERING

BUSINESS & TECHNOLOGY

www.vub.ac.be/business-and-technology

120 ECTS
WHY VUB

VUB education delivers strong individuals, critical minds & world citizens

The Vrije Universiteit Brussel (VUB) offers high-quality English-taught programmes, supported by outstanding research. Being a student at VUB means learning in an open atmosphere of tolerance and diversity and growing into an independent and critical-thinking individual.

All fields of study are offered on 4 student-friendly campuses in the cosmopolitan city of Brussels. At VUB, students have easy access to their lecturers and assistants. Faculty members are available and open to answer questions; small group workshops are used to ensure close interaction and hands-on experience.

VUB is a dynamic and modern university with almost two centuries of history. There are 15,000 students, 21% of whom are international students from more than 120 different countries.

The basis of our academic success

The Vrije Universiteit Brussel was founded on the principle of ‘free inquiry’ as formulated by the French mathematician and philosopher of science Henri Poincaré (1854-1912): ‘Thinking must never submit itself, neither to a dogma, nor to a party, nor to a passion, nor to an interest, nor to a preconceived idea, nor to anything whatsoever, except to the facts themselves, because for it to submit to anything else would be the end of its existence.’

Personal growth with a positive and critical attitude, a sense of responsibility and open-mindedness, these are characteristics that you will encounter in everyone at the university, from professors and researchers to students and staff. It lies at the heart of our academic success.
Economics as foundation, technology as added value

The Master in Business and Technology, organised by the Solvay Business School of the Vrije Universiteit Brussel, focuses on the business aspects of modern technology. The programme contains advanced business and technology courses, as well as courses combining both perspectives, such as the entrepreneurship course. The programme encompasses all aspects of international businesses: from economics and finance to engineering and human resources. Thanks to the mix of in-depth theoretical and practical knowledge, you will learn everything you need to succeed as a business engineer in a high-level position. Our master programme prepares you for the challenges of the globalised economy.
Study Business & Technology in the heart of Europe
Our programme gives international undergraduates the opportunity to benefit from the expertise of the Solvay Business School, without having to attend classes in Dutch. The programme was founded by Ernest Solvay in 1904 to educate commercial engineers, so it has a long tradition in management, economics and technology. Participation in a high-level business programme in Brussels, the capital of Europe, is a great asset for any student striving to be prepared for the challenges of management in a globalised world.

Becoming a business engineer
Economics as its foundation, technology as added value and entrepreneurship as a guideline - this is, in short, the philosophy behind the Belgian academic qualification of business engineer (also known as management engineer or commercial engineer). The Master in Business & Technology focuses on business aspects of cutting-edge technology and offers high-level courses on various aspects of business, finance, accounting, technology, strategy, analytics and more. The entrepreneurship course combines business and technology by putting our products on the market.

Close the gap between different worlds
The idea is to train professionals who can understand the jargon and business environment of all their colleagues, be they engineers, economists, lawyers or computer scientists. The Solvay Master of Business & Technology focuses strongly on IT and innovation and has a clear international flavour. Our graduates can bridge the gap between the different worlds of the many professions in the workforce.

Solvay Schools Alumni: a boost for your career
Solvay Schools Alumni is the association that gathers all graduates from the Solvay Business School VUB and the Solvay Brussels School of Economics & Management ULB. Representing a network of 20,000 alumni in more than 65 countries, our alumni are present in all areas of the workforce. With about 50 activities and conferences every year, the organisation offers its members lifelong learning, career services, support and networking opportunities. Thanks to an extensive online database and its annual yearbook, Solvay Schools Alumni gives its members the chance to keep in touch and meet up at professional and social meetings.

The first steps of your career
You can choose to do an internship worth 6 ECTS (20 working days or more) or 12 ECTS (40 working days or more). The objective is to work on a project within a company or organisation, with the explicit exception of daily operational activities. Examples of activities students can perform are market research and analysis, a functional analysis of business processes, the implementation of new processes, and analysis of company data on a process, department or organisational level.
### MASTER YEAR 1

**Compulsory Courses**
- Information Systems Strategy and Management 6
- International Corporate Finance 6
- Decision Analytics 6
- Project Management 6
- Advanced Accounting and International Financial Statements 6
- Advanced Technology 6
- Databases 6
- Paper 6
- Advanced Marketing 6

**Elective Courses: Choose 6 ECTS**
- Technology and Applications of Microelectronics and Photonics 6
- Materiaalkunde 6
- Biotechnology 6

**Total** 60 ECTS

### MASTER YEAR 2

**Compulsory Courses**
- Master Thesis within Business and Technology Program 18
- Corporate Social Responsibility 6
- Competitive Strategy 6
- Entrepreneurship 3

**Entrepreneurship and Business Aspects of Technology Courses: choose 3 ECTS**
- Biotechnology Innovation in Materials 3
- Micro-electronics and Photonics
- Software Industry

**Elective Courses: Choose 24 ECTS**
- Internship 6
- Internship 12
- Technology and Applications of Micro-electronics and Photonics 6
- Materiaalkunde 6
- Biotechnology 6
- Sustainable Mobility and Logistics 6
- Risk Management 6
- Multinational Strategic Planning 6
- Global Banking 6
- Trade Mission 6
- Web Information Systems 6
- Technological Business 6
- Development Project 6
- Supply Chain Management 6
- Advanced Finance 6

**Total** 60 ECTS

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**PROGRAMME STRUCTURE**

The Master in Business and Technology is a two-year, full-time programme of 120 ECTS. The first year consists of compulsory courses, with the exception of one elective that can be chosen from three technology courses. In the second year, only a few courses are compulsory. A list of electives in business aspects and courses ranging from entrepreneurship to biotechnology to global banking allows students to personalise their curriculum. Students can also choose to do an internship of 6 or 12 ECTS.

The programme is subject to change. Check [www.vub.ac.be/en](http://www.vub.ac.be/en) for the latest information about the programme.

ECTS (European Credit Transfer System): 1 credit represents 25-30 hours of study activity.
HOW TECHNOLOGY AND BUSINESS MEET

TECHNOLOGY BUSINESS DEVELOPMENT PROJECT

They might be studying business engineering, bioengineering, civil engineering, computer sciences... Together, the teams contribute to a technological business development project, emanating from the university’s research labs. Guided by researchers and academic entrepreneurs from the VUB’s research lab, the students contribute to the business plan and development of VUB spin-offs, such as Optrima (now Softkinetic), Etherna, Zensor and Zebra Academy. The tasks students perform depend on the nature of the project. These can include opportunity studies, market and competition analysis, financial and cost analysis and business plan drafting.

These real-life projects ensure that students are ready to work in multidisciplinary teams and are prepared to work with all the departments of a high-technology company.

“In the last four months we had the chance to work, share and reflect with people in a real entrepreneurial adventure. Beyond the task we performed and the theories we learned, we took our first look at what entrepreneurship really represents, and the involvement and attachment of people to a project they often called ‘their baby’. For the first time, we had the opportunity to practise and challenge the concepts we learned during our education.”

Christophe Côte, Pierre Friesewinkel and Quentin Debois; students working on an automated column coupling device for liquid chromatography, developed by researchers at the Chemical Engineering and Industrial Chemistry Department.
“The MBT programme offers a combination of business and technology education; a mix that is key in the digital age. The programme offers a broad education, opening a lot of future career opportunities. Alongside the quality of the programme, the university’s open mindset and diverse culture help students achieve their goals in this complex world.”

Thierry Geerts
Solvay alumnus and Country Director at Google Belgium
ADMISSION CRITERIA
Admission is based on the review of each application: proof of meeting academic and language requirements, personal motivation, etc.

LANGUAGE REQUIREMENTS
Prospective students can provide proof of sufficient knowledge of English as language of instruction by meeting one of the following criteria:

- having successfully completed one of the following language proficiency tests:
  - TOEFL: minimum level: 213 for the computer-based test (CBT); 80 for the internet-based test (IBT); 550 for paper-based test
  - TOEIC: minimum level: 785
  - IELTS: minimum level academic module 6.5
  - CAE: minimum grade B
  - CPE: minimum grade C
  - ITACE for Students certificate with ERK/CEFR score B2
  - Cambridge English First (FCE)
  - Cambridge English: Business Vantage (BEC Vantage)
  - Cambridge Michigan ECCE
  - Trinity College London: ISE II, GESE Grade 7-9; or ALTE Q mark
  - The Pearson Test of English General (PTE General): minimum level 3
  - The Pearson Test of English Academic (PTE Academic): minimum level 59
- having successfully completed at least one year of secondary education with English as language of instruction, or having successfully completed secondary school in a Belgian institution;
- having successfully completed programme units in higher education with a minimum of 54 ECTS-credits where English was the language of instruction.

For more details on admission requirements and application: www.vub.ac.be/en/apply

DIRECT ADMISSION
Candidates with a Flemish degree of BSc Handelsingenieur.

ADMISSION AFTER EXAMINATION OF THE APPLICATION FILE
Other candidates must have an academic Bachelor's degree in a field related to Business/Management or Economics. In addition to this, applicants need to have successfully achieved a minimum number of (European) credits in Economics, Business/Management, Quantitative Methods, Law, and Languages. Also, it is absolutely vital that students have acquired credits in Natural Sciences (chemistry, biology, physics, etc.).

Check the admission requirements on www.vub.ac.be/business-and-technology for a detailed list of requirements.

Application deadline
Prospective students are advised to apply as soon as possible, even if they have not yet obtained their degree. Applications can only be submitted through our website www.vub.ac.be/en/apply

- All students need to apply before June 1st
- Note: if the proof of English proficiency or APS certificate is not ready before the deadline, you can always submit it later instead of missing the deadline

Tuition fees
All Flemish universities in Belgium are subsidised by the government, which results in relatively low tuition fees. The general tuition fee for our master programmes is €890/year. Some master programmes have an increased tuition fee for students with a non-EU/EEA nationality. A detailed overview of the tuition fees can be found on: www.vub.ac.be/en/tuition-fees

Contact
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