

# Master of Business Engineering: Financial Engineering

2024-2025



Transforming the financial world  
starts with **transforming yourself**



University  
of Antwerp

| Let's shape the future

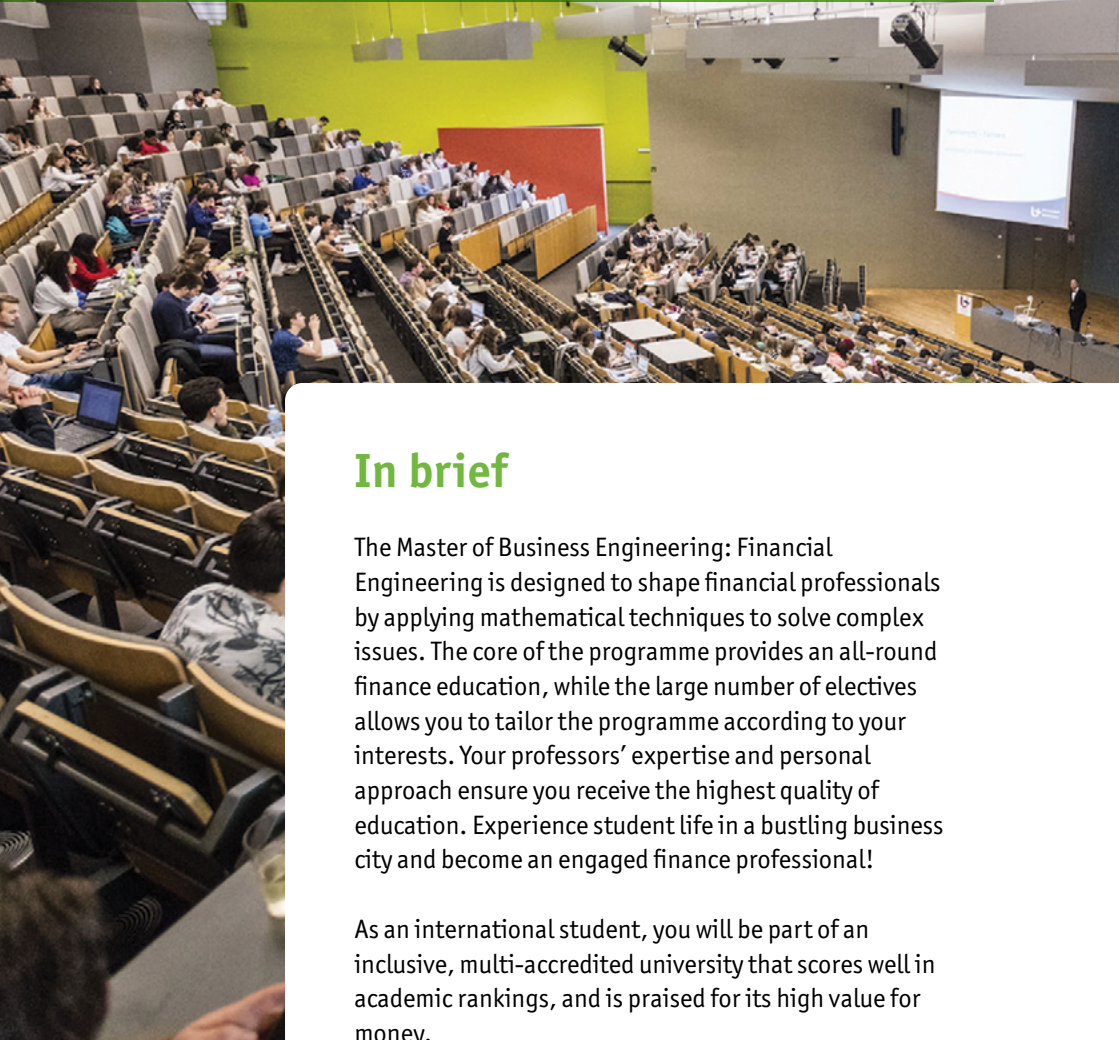
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Entrepreneurship, independence and proactivity are highly encouraged, and if you need help you can always consult one of the many accessible professors.



## In brief

The Master of Business Engineering: Financial Engineering is designed to shape financial professionals by applying mathematical techniques to solve complex issues. The core of the programme provides an all-round finance education, while the large number of electives allows you to tailor the programme according to your interests. Your professors' expertise and personal approach ensure you receive the highest quality of education. Experience student life in a bustling business city and become an engaged finance professional!

As an international student, you will be part of an inclusive, multi-accredited university that scores well in academic rankings, and is praised for its high value for money.

## In detail

Do you have an interest in finance and business, as well as in statistics, mathematics and finance technology? Want to learn everything there is to know about finance, and then deep dive into your field of interest? If your answer is yes, then you were meant to be a financial business engineer. But what does that title mean?

**In a nutshell:** You are fully trained to solve financial problems and evaluate solutions within a corporate context. You engineer the financial future of business ideas by transforming theory into practice, in an ethical and sustainable way.

### Interdisciplinary programme

In this two-year Master's programme:

- you gain a profound insight in the financial products used by corporates, banks, insurance companies, etc. and
- you develop the skills to formulate, analyse and solve financial models within the complex environment of today's organisations.

### Build your future

Once you have graduated, you become a highly sought-after profile on the job market. Often, our final-year students have signed a contract, even before they graduate. Over the past ten years, 95% of our students from our Dutch equivalent programme found a job within 6 months after graduation.



*UAntwerp has an extensive international offer, and actively pushes you to take part in many activities outside the classroom during your study.*

**Stéphanie Massart,**  
Associate at Gimv

**Innovative business city**

As a student in Antwerp, you find yourself in the only Belgian city on the Financial Times's list of most innovative business cities in Europe. In 2022, the Financial Times placed Antwerp in the top 10 of their 'Global Cities and Regions of the Future 2022/2023' rankings. The city was rewarded for its business-friendliness, connectivity and economic potential. And for good reason.

The city of Antwerp is home to Europe's second biggest port, the global diamond trade, a large chemical cluster, a thriving fashion industry, and you can visit the beautifully renovated old Stock Exchange which was the centre of commodity trade in the 16th century. Plus, you are only 45 minutes away from Brussels, the headquarters of the European Union. With our central location, you can easily travel to other major cities like Amsterdam, Paris, Berlin, London and Milan in just a few hours' time.

**Rankings and accreditations**

The faculty's AACSB, EQUIS and EFMD programme accreditations illustrate our high-quality teaching and research, placing us among a select group of global leaders in business education.

In the Financial Times European Business Schools Ranking 2022, the University of Antwerp is ranked 92nd.

## Programme structure

Studying abroad is a big decision. So, if there is one thing we guarantee, it is that you won't just be a number at the Faculty of Business and Economics. The academic staff is at your disposal to help you with any questions you may have. We promise to do everything we can to make you feel at home in our international classroom.

In addition to their extensive academic backgrounds, our professors have close ties with major banks, investment firms, etc. Throughout the programme, you will have interaction with seasoned industry experts and alumni from a diversity of disciplines. Thus, theoretical knowledge combined with research and real-life cases from the corporate world will enrich your understanding of today's financial world.

This programme spans the **entire range** of the financial spectrum, but at the same time you have a lot of freedom to choose specific fields you want to focus on. You have a compulsory core of 78 ECTS credits, containing business ethics, asset management, banking and an empirical finance lab. Besides that, you can assign 42 ECTS credits to a wide range of electives, such as accounting, auditing, data science, economics, corporate finance, insurance, strategic management, etc. Even bootcamps and/or summer schools can be followed.



*At the Faculty of Business and Economics, it is our mission to shape our students into diamonds.*

**Prof. Koen  
Vandenbempt, Dean**

### Learning outcomes

Your Master's degree in Business Engineering: Financial Engineering will kickstart your (international) career, as you will have obtained indispensable soft and hard skills. All the building blocks needed to prepare you for the CFA exams will be addressed in the programme.

All learning outcomes and competences are listed on [www.uantwerpen.be/financial-business-engineering](http://www.uantwerpen.be/financial-business-engineering), but at the end, you'll be able to:

- a** **distinguish** and define concepts of specific areas of finance, business, economics and technology, and you are aware of the latest national and international developments in these areas;
- b** **conduct** research and critically evaluate the results in a scientifically correct manner, based on your analytical insights and methodological training;
- c** **recognise** the ethical and sustainable aspects of business operations in a globalising world, and contribute to the quality improvement of business processes in a socially responsible manner;
- d** **identify** and evaluate the impact of changes in finance technology on business decisions;
- e** **work** and communicate efficiently in multicultural and/or international teams.



*During my studies, I had the opportunity to go on an exchange to China and on a summer school trip to India and Japan.*

**Michèle Van Spilbeeck,**  
Director at AB Inbev

## Internationalisation

Employers value young professionals who are used to working in multicultural settings. Hence, in addition to a solid theoretical basis, you will get plenty of opportunities to gain international experience during your studies. Not only will you meet fellow students from all over the world in our international classroom, but you can also:

- take part in the **Erasmus+ exchange** programme at one of our 150 partner universities or
- participate in a **summer school** or **bootcamp** or
- do an **internship**.





## Curriculum **Compulsory courses** **Semester** **ECTS credits 78**

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### **Business Ethics**

One to be chosen in part 1 or part 2 of the Master.

If you choose 'Accounting Ethics' as a compulsory course, you have to take up elective courses for only 39 ECTS credits (instead of 42 ECTS credits).

|                                    |            |          |
|------------------------------------|------------|----------|
| — Accounting Ethics                | SEM 2 or 4 | <b>6</b> |
| — Data Science and Ethics          | SEM 1 or 3 | <b>3</b> |
| — Ethical and Sustainable Business | SEM 2 or 4 | <b>3</b> |

### **Quantitative Skills**

|                                 |       |          |
|---------------------------------|-------|----------|
| — Applied Econometrics          | SEM 1 | <b>6</b> |
| — Machine Learning for Business | SEM 1 | <b>6</b> |
| — Financial Econometrics        | SEM 2 | <b>3</b> |

### **Corporate Finance**

|                                    |       |          |
|------------------------------------|-------|----------|
| — Corporate Finance and Governance | SEM 1 | <b>6</b> |
|------------------------------------|-------|----------|

### **Banking and Financial Regulations**

|   |       |          |
|---|-------|----------|
| — Financial Intermediation and Regulation | SEM 1 | <b>6</b> |
| — Banking                                 | SEM 3 | <b>6</b> |

### **Asset Management**

|                         |       |          |
|-------------------------|-------|----------|
| — Financial Engineering | SEM 2 | <b>6</b> |
| — Investments           | SEM 2 | <b>6</b> |

### **Financial Risk Management**

|                             |       |          |
|-----------------------------|-------|----------|
| — Financial Risk Management | SEM 3 | <b>6</b> |
|-----------------------------|-------|----------|

## Master's Thesis Trajectory Semester ECTS credits 24

### Research Track

|  |           |   |
|--|-----------|---|
| — Empirical Finance Lab                    | SEM 1 & 2 | 6 |
| — Trends in Finance and Finance Technology | SEM 4     | 3 |

|                              |       |    |
|------------------------------|-------|----|
| <b>Master's Dissertation</b> | SEM 4 | 15 |
|------------------------------|-------|----|

## Elective courses \* Semester ECTS credits 42

### Accounting and Audit

|   |            |         |
|---|------------|---------|
| — Accounting Ethics                           | SEM 2 or 4 | 6       |
| — International Financial Reporting Standards | SEM 2 or 4 | 6       |
| — Auditing                                    | SEM 1 or 3 | 6       |
| — Current Topics in Accounting                | SEM 2 or 4 | 3       |
| — Financial Analysis and Business Valuation   | SEM 1 or 3 | 6       |
| — Sustainability Reporting and Analysis       | SEM 2 or 4 | 3 (tbc) |

### Corporate Finance

|                           |            |   |
|---------------------------|------------|---|
| — Entrepreneurial Finance | SEM 2 or 4 | 6 |
|---------------------------|------------|---|

### Data Science and Artificial Intelligence

|  |            |   |
|--|------------|---|
| — Current Topics in Data Science and Artificial Intelligence | SEM 2 or 4 | 3 |
| — Data Engineering   | SEM 2 or 4 | 6 |
| — Data Science and Ethics                                    | SEM 1 or 3 | 3 |
| — Deep Learning for Business                                 | SEM 2 or 4 | 3 |



*Many of the professors are active in the private sector, and their lessons were full of interesting stories about how things work in real life.*

**Yannig Bourgeois,**  
Founder of WebFaster

| Elective courses * | Semester | ECTS credits |
|--------------------|----------|--------------|
|--------------------|----------|--------------|

### Business and International Related courses

|                      |            |   |
|----------------------|------------|---|
| — Internship Project | SEM 2 or 4 | 6 |
| — Internship         | SEM 1      | 3 |
| — Internship         | SEM 2      | 3 |
| — Summer School      | SEM 1 or 3 | 3 |

Choice of various summer schools organised in Antwerp and abroad. For a complete list of the summer schools, check the programme's website:

[www.uantwerpen.be/financial-business-engineering](http://www.uantwerpen.be/financial-business-engineering)

### Economics

|                        |            |   |
|------------------------|------------|---|
| — Macroeconomic Policy | SEM 1 or 3 | 6 |
| — Monetary Economics   | SEM 2 or 4 | 6 |
| — Public Finance       | SEM 2 or 4 | 6 |

### Insurance

|  |            |   |
|--|------------|---|
| — Insurance: Financial and Actuarial Methods | SEM 2 or 4 | 6 |
| — Insurance Law                              | SEM 2 or 4 | 3 |

### Strategy

|  |            |   |
|--|------------|---|
| — Organisational Development and Change Management | SEM 1 or 3 | 6 |
| — Organisational Theory and Design                 | SEM 2 or 4 | 6 |
| — Strategic Management                             | SEM 1 or 3 | 6 |

### Qualitative Skills

|  |            |   |
|--|------------|---|
| — Introduction to Time Series Analysis | SEM 2 or 4 | 3 |
|--|------------|---|

## Total

ECTS credits 120

\* Elective courses

Students choose, spread over year 1 and year 2 of the Master, 42 ECTS credits of which at least 2 courses must be chosen from the same domain listed above.

Within the elective course units, the student is also free to choose one or more subjects (9 ECTS credits) that match their interest profile. Any Master's course offered by the Faculty of Business and Economics can be chosen. Courses offered by other faculties, from the YUFE course catalogue, or by exchange partners can be chosen as well, conditional on approval by the Board of Admission.

## Job opportunities

If you choose to study the Master of Business Engineering: Financial Engineering at the University of Antwerp, you will be fully prepared to take your first steps towards the job market. During your studies, you will be in frequent contact with the business world through guest lectures, corporate visits, a career development track and job fairs. Students and alumni get unlimited access to the Career Center, our go-to platform for vacancies, internships and career-related events from hundreds of national and international companies.

Many final-year students sign a contract before they even graduate. Over the past ten years, 95% of our Business Engineering students have found a job within 6 months of graduation. Alumni from the equivalent Dutch-taught programme currently live and work in 17 different countries all over the world.



### **An exciting career awaits**

Once you have earned your Master's degree in Business Engineering: Financial Engineering, you will benefit from a unique set of skills that will make you stand out in the job market. Our alumni take up key positions in numerous sectors, both private and public. They are CEOs, CFOs, economists, business controllers, etc. They work in consulting firms, banks, insurance companies, etc. Others have started their own companies or became researchers at several top universities. The possibilities are endless. Where you will end up working, that is completely up to you, your personal interests and your ambitions.

### **Orientation year**

**As of 2021**, non-European students in Belgium can make use of the **orientation year**. This gives them 12 months to find work or start a company in Belgium, following the completion of their studies.



*The programme provides vast knowledge about the financial system and its inner workings. In addition, the program is structured in a way that enables students to maintain a healthy balance between their personal and study life."*

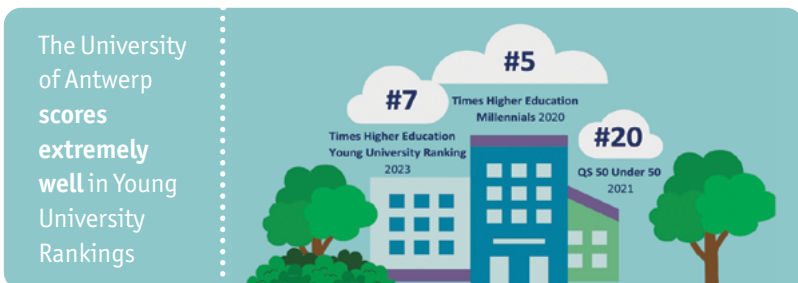
**Matic, Slovenia**

## Why choose UAntwerp

Our university is located in the **city of Antwerp**, in the heart of Belgium and Europe. The port of Antwerp is one of the biggest in the world. The city of Antwerp is not just an ancient medieval and baroque city, full of history. It is also a bustling metropolis with a vibrant social scene, impressive architecture and cultural contrasts. Over 170 nationalities live here, more than in New York! This cosmopolitan vibe is also reflected at the University of Antwerp.

**First-rate research and education** make the University of Antwerp a wonderful place to study and to work. We foster the nexus between research and education. Internationalisation is key to our mission. It is no coincidence that the University of Antwerp is a partner in a highly promising European University Network, the Young Universities for the Future of Europe [www.YUFE.eu](http://www.YUFE.eu).

As home away from home to over **20,000 students**, the University of Antwerp prides itself on operating on a human scale. Our faculty and staff will welcome you into top-notch infrastructure on one of our four campuses. While you're here you are also invited to enjoy our vibrant cultural programming, sports facilities and many other student services.





## Testimonial

**Alissa Popova (alumna Business Engineering),  
Financial Manager at EY**

“During the Master’s programme, you have a lot of freedom to choose focus areas based on your own interests. These electives allow you to really challenge yourself and get to know all aspects of the financial world.”

After her studies, Alissa started working at AG Insurance, and then made the switch to the insurance department of the consulting firm EY.

“Despite the fact that I work for one of the Big Four accounting firms, I don’t feel like a number at all. The approach within the company is very personal, and there is open communication with our partners and directors. We give mutual feedback, both bottom-up and top-down. That way, you learn where your strengths and weaknesses lie. If you want to become a manager, they make sure you acquire all the necessary skills before you start. So, don’t be afraid to start working at a big company, you will be coached every step of the way.



My job as a Financial Manager is very varied and depends heavily on the project and the client. I look at what we want to achieve with the project and how we can do that in close collaboration with the client. Thanks to my Business Engineering degree, I can easily communicate with all my colleagues, whether they are more scientifically, economic or technically inclined.”

During her studies, Alissa gained a lot of international experience. “I took part in the Erasmus exchange programme and went to Finland for a semester. I would really recommend doing this while you are studying, because such an experience really puts everything into perspective. I found it striking how business engineers are regarded there, because it is a fairly unique study programme in the world. I also joined a summer school in Ljubljana. It was fantastic to learn from other students from different cultures.

In short, I profoundly enjoyed life as a student. The long nights before exams were perhaps less fun, but you meet so many great people and you learn to push yourself. And all that in the heart of a great city like Antwerp truly makes it a unique experience.”



## Admission criteria

International students must apply for admission using our online application platform Mobility Online. In order to be eligible for the Master of Business Engineering: Financial Engineering, **you need:**

- An academic Bachelor's degree from a recognised university with a strong quantitative focus and with sufficient knowledge of economics and management or
- An academic Bachelor's degree from a recognised university in business economics with a substantial quantitative component.

You will need to provide evidence of your acquired **competences in:**

- economics,
- business management,
- research methodology and mathematics and
- information systems and science.

The following academic degrees, obtained in Belgium, will give direct access to the programme:

- Bachelor handelsingenieur
- Bachelor of Business Engineering



*What makes our financial business engineers truly unique in the market, is that they study all the building blocks needed to understand the complex world of finance.*

**Prof. Marc De Ceuster,**  
Programme director

### **Preparatory programme**

If you do not belong to one of the categories above, but you do have an academic degree with a (limited) economic, management or information systems component, you might have the possibility to start this programme through a preparatory programme.

### **Language proficiency**

This programme is taught entirely in English. If your degree was not issued by a recognised educational institution in Belgium, the Netherlands or Luxembourg, you will have to provide evidence of your level of English.



They can do so by submitting a **language certificate** showing their TOEFL, IELTS or ITACE results (the level required can be checked on [www.uantwerpen.be/admission](http://www.uantwerpen.be/admission)). Students with a degree from the United Kingdom, Ireland, United States, Canada, Australia and New Zealand are exempt from providing a language certificate.

### **Additional requirements**

A GMAT or GRE test result is required.

- └ **GMAT:** an overall score of 600 + 50 on quantitative part
- └ **GRE:** a minimum score of 162 on quantitative and 152 on verbal reasoning

Students are exempt from submitting a GMAT/GRE test result if they have obtained their degree at one of the following institutions:

1. a Belgian university,
2. a university ranked in the global top 400 in the most recent edition of THE or QS World Ranking,
3. one of FBE's exchange partners or
4. a university with an AACSB, EFMD or EQUIS accreditation.

## Application procedure

If you have a Bachelor's or Master's degree from a higher education institution in Belgium, the Netherlands or Luxembourg and you don't need a visa, you can apply through a simplified online form on: [www.uantwerpen.be/financial-business-engineering](http://www.uantwerpen.be/financial-business-engineering).

Candidates who do not fulfil this condition or who need a student visa must submit an online application through the **Mobility Online** tool. Application files for the academic year 2024-2025 can be uploaded in Mobility Online as 9 November 2023 onwards.

### Application deadlines

To submit an application through Mobility Online

For non-EEA \* nationals and for students who need a visa: **before 1 March 2024**

For EEA nationals: **before 1 June 2024**

### Enrolment deadline

4 October 2024

Enrolments start on 1 July 2024.

The academic year 2024-2025 starts on Monday 23 September 2024.

\* EEA = European Economic Area

#### Member states:

Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxemburg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden

## ECTS credits

The University of Antwerp applies the '**European Credit Transfer and Accumulation System**' (ECTS) in all its degree programmes.

A full-time one-year study programme amounts to **60 ECTS credits** (30 ECTS credits per semester), which implies a student workload of about 1500 to 1800 hours. One ECTS credit stands for 25 to 30 hours of work including contact hours, preparatory work, study and assessment.



## Quick facts

**Level**  
Master

**Language**  
English

**Credits**  
120 ECTS credits

**Number of years**  
2

**Tuition fee per year \***  
EUR 1092.10 for EEA nationals  
EUR 5800 for non-EEA nationals

**Campus**  
Stadscampus

**Faculty**  
Business and Economics

**More information**  
[www.uantwerpen.be/  
financial-business-engineering](http://www.uantwerpen.be/financial-business-engineering)



\* subject to yearly revision

## Contact

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[www.uantwerp.be](http://www.uantwerp.be)

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This brochure was published in September 2023.  
As all information is subject to change,  
please check our website for the latest updates.