

Master of Science (MSc)  
**Quantitative  
Finance**



THE + PLUS + EXPERIENCE



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English-taught  
master's program

# Make Numbers Work for You

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## THE PROGRAM AT A GLANCE

The internationally oriented program is designed to provide students with an excellent academic and practical education, as well as with a promising outlook for a future career in today's challenging and dynamic financial markets. Throughout the program, a well-balanced curriculum builds strong quantitative skills coupled with a solid knowledge base of the underlying theory of finance. Students acquire the necessary knowledge and skills to use mathematical models to comprehend complex financial problems and learn how to independently apply these models in the field of economics. In addition to the internationally-renowned faculty, the Vienna Graduate School of Finance (VGFSF) is involved in the program as a cooperation partner. The VGFSF ([vgsf.ac.at](http://vgsf.ac.at)) is a PhD Program funded by the Austrian Science Fund (FWF) which is aimed to prepare its graduates for the international academic job market.

## CONTENT AND STRUCTURE

The curriculum ensures that students acquire not only theoretical but also practical knowledge and skills. The **first year** consists of a structured curriculum concentrating on the basics common to all specializations in quantitative finance.

In the **second year**, students choose between a **Science Track** and an **Industry Track**. The Science Track focuses on preparing students for an academic career in all major fields of finance and numerous electives. Special emphasis is on academic literature research and scientific writing. The Industry Track aims at students who are seeking a

career as quants in the finance industry. Besides courses in the major fields, the program concentrates on combining financial models with computational skills.

## CAREER PROSPECTS

The program has been designed to provide students with the advantageous combination of state-of-the-art academic qualification and a specialization in the field of finance. After graduating, students will be able to

- › understand and analyze complex financial problems using mathematical and statistical models
- › use mathematical and statistical methods and computational procedures for financial decision-making
- › handle financial market data and information systems in theory and practice
- › work in teams and participate successfully in problem-solving processes
- › write and present academic papers (Science Track)
- › develop and apply computational processes for finance-related problems (Industry Track).

Graduates are qualified to be tomorrow's experts in the increasingly complex world of finance, e.g. in asset management; credit and market risk management; treasury and trading; financial engineering; research and technical analysis and corporate finance. Graduates are also qualified to continue their qualification in a relevant PhD program.

## WHY QUANTITATIVE FINANCE?

Quantitative Finance master's students acquire the knowledge and skills to tackle complex issues and challenges in the world of finance. This master's program at WU Vienna is one of the world's best programs in quantitative finance (16th place, QS).



**“With their strong financial expertise and outstanding computing and data analysis skills, our graduates have excellent career opportunities. Most of them get their dream job right after graduation and receive extraordinary salaries.”**

**Kurt Hornik**  
Academic Director, Quantitative Finance

PROGRAM STRUCTURE 1ST YEAR					
1st semester					
Computing	Mathematics	Microeconomics	Principles of Finance	Probability	Statistics I
5 ECTS	5 ECTS	5 ECTS	5 ECTS	5 ECTS	5 ECTS

2nd semester					
Corporate Finance	Financial Markets and Instruments	Statistics II	Asset/Risk Management I	Econometrics	Mathematical Finance
5 ECTS	5 ECTS	5 ECTS	5 ECTS	5 ECTS	5 ECTS

PROGRAM STRUCTURE 2ND YEAR			
SCIENCE TRACK 3RD AND 4TH SEMESTER			
Common courses	Required courses	Electives	Master's Thesis
<ul style="list-style-type: none"> <li>› Statistical and Machine Learning</li> <li>› Asset/Risk Management II</li> <li>› Master's Thesis Seminar</li> </ul>	<ul style="list-style-type: none"> <li>› Paper Reading and Writing</li> <li>› Research Seminar I</li> <li>› Research Seminar II</li> </ul>	<p>Science Track:</p> <p>Electives (choice of four):</p> <p>At least more than ten electives are offered each year, four have to be selected, in addition the elective Advanced Mathematical Methods is mandatory.</p>	
Total 12 ECTS	Total 8 ECTS		
INDUSTRY TRACK 3RD AND 4TH SEMESTER			
Common courses	Required courses		Master's Thesis
<ul style="list-style-type: none"> <li>› Statistical and Machine Learning</li> <li>› Asset/Risk Management II</li> <li>› Master's Thesis Seminar</li> </ul>	<ul style="list-style-type: none"> <li>› Industry Lab</li> </ul>	<p>Industry Track:</p> <p>Electives (choice of five):</p> <p>At least more than ten electives are offered each year, five have to be selected.</p> <p>The electives offered vary regularly depending on current developments in theory and practice.</p> <p>The actual electives offered are announced on <b>wu.at/qfin</b></p>	
Total 12 ECTS	Total 8 ECTS	Total 12 ECTS (à 4 ECTS)	



For further details see:  
**wu.at/qfin**



out of 206 programs  
ranked in the  
QS Master of Finance  
Ranking in 2024, among  
the top 7.8% globally

## AT A GLANCE

<b>Program type</b>	Full-time degree program
<b>Duration</b>	4 semesters
<b>Language of instruction</b>	English
<b>Credits</b>	120 ECTS credits (incl. 20 ECTS credits for the master's thesis)
<b>Degree awarded to graduates</b>	Master of Science (WU), abbreviated MSc (WU)

## APPLICATION AND ADMISSIONS

A rigorous selection process ensures that only the best students enroll in the program, keeping quality standards high. The admission process starts with online application. Applicants' aptitude for the Master in Quantitative Finance is judged based on the following criteria:

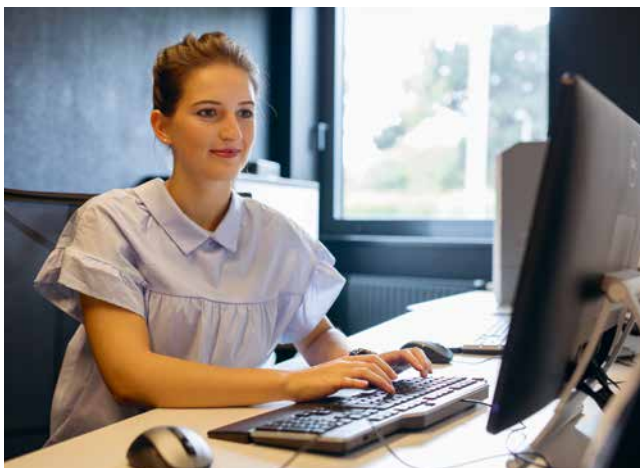
- › A bachelor degree or equivalent first degree in a subject relevant to the program (the program is worth at least 180 ECTS credits). Examinations must have been taken in one of the following subjects: (i) business administration, and/or economics, and/or finance, worth a minimum of 60 ECTS credits (ii) mathematics, and/or statistics, and/or computing worth a minimum of 45 ECTS credits
- › English proficiency, minimum C1 level
- › Skills and knowledge in business administration/economics/finance
- › Skills and knowledge in mathematics/statistics
- › Achievement potential (e.g. GMAT, GRE, letter for reference/s)

## APPLICATION DEADLINE

WU employs a rolling admissions policy, allowing students to apply from the beginning of September until March.



For detailed information on the admission requirements and the application procedures, please see:  
**[wu.at/applicationguide](https://wu.at/applicationguide)**





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# TOP 1% BUSINESS UNIVERSITY

## THE PLUS EXPERIENCE

If you decide to complete your Master's degree at the WU Vienna University of Economics and Business, you will receive one of the best business educations in the world. But that's not all: You are guaranteed to experience excellent job prospects, an awardwinning campus, state-of-the-art teaching, a diverse range of degree programs and, on top of it all, life in the world's most livable city.



## + MOST LIVABLE CITY IN THE WORLD

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EXPERIENCE

## Information and contact

To find out more about the Master's Program in  
Quantitative Finance, please visit:  
[wu.at/qfin](https://wu.at/qfin)

For further questions please contact:  
**Dragana Pajic**, Program Manager  
[qfin@wu.ac.at](mailto:qfin@wu.ac.at)

Academic Directors of the Master's Program in  
Quantitative Finance:  
**Kurt Hornik**  
**Stefan Pichler**



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[wu.ac.at](https://wu.ac.at)

Arriving by public transport:  
Subway: U2 stations "Messe-Prater" or "Krieau"  
Bus: 82A, "Südportalstraße" stop