



*„An investment
in knowledge pays
the best interest.“*

Benjamin Franklin



Faculty of Mathematics and Economics

M. Sc. Master in Finance

4 Faculties: Medicine
Natural Sciences
Mathematics and Economics
Engineering, Computer Sciences and Psychology

more than **50** study programmes numerous additional language and
soft skills courses

more than **90** institutes

Approx. **10.000** students

more than **200** Faculty members Door to door with businesses and
industry

2000 academic staff

Time-tested accompanying
support programmes

Ulm – a dynamic city in Germany's South
offering excellent quality of life

Our international finance program...



... is quantitative and practical

... teaches state-of-the art techniques demanded on the job market and in academia

... offers a **flexible** curriculum according to your own goals

... allows you to network and connect with students from all over the world



Why Finance in Ulm

“The MSc Finance programme in Ulm has the capacity to equip students with the knowledge and skills necessary for a successful career in the financial industry. The flexible structure and wide range of courses offer numerous directions of specialisation, and an invaluable cultural experience is obtained through studying with colleagues from across the globe.”

Christopher Davis (England), Quantitative Management Associate, Bank of America Merrill Lynch

“What I really like about the Master in Finance program is that it offers courses that cover a wide range of areas in finance and that students are completely free to choose their own study path. The experience I gained during two years I spent in Ulm prepared me in the best possible way for my future career and enabled me to enter a leading-edge company in the area of investment and risk.”

Jovana Zavisin (Serbia), Analyst, risklab GmbH, The Investment and Risk Advisory Experts of AllianzGI Global Solutions

“MSc Finance at Uni Ulm provides students with a lot of flexibility in designing their own bespoke program in finance. Also, it is a very good opportunity to get to know Germany and German culture and meet people from around the world.”

Natalia Kalashnikova (Russia), ABS Strat, Goldman Sachs

“The Master of Finance program offers classes that are well suited to prepare students for a career in the financial sector, as well as classes that are more research oriented. Due to the various seminars I took during my studies, several group projects and the master's thesis, I was well prepared for my Ph.D., which I am currently doing at Ulm University as well.”

Mazen Ali (Yemen), PhD student in numerical finance, Ulm University

Advantages for you

- Our program is very quantitative and practical – it makes you stand out from the crowd.
- Digitalization will change the world of finance, but with the MSc Finance, you will be ready for that change.
- The curriculum allows you to customize your studies according to your own interests and goals.
- Many opportunities to network with other students – from both Germany and from many other countries.
- Yearly job fair and contacts to industry partners via our alumni association.
- According to Times Higher Education, Ulm is **ranked 16 worldwide** among all universities founded in the Golden Age of Higher Education, the era between 1945 and 1967. In the global comparison of all universities regardless of their age, Ulm University is ranked 146.
- Ulm is a beautiful city, lively but safe, with a top rank in terms of personal wellbeing. Close to Europe's financial centers and easily reachable by public transportation.



Read more testimonials



Watch our video on YouTube

What you can expect

The program is spread over four terms (two years), with three terms of course work and one term to write the master's thesis. After the first term, students can decide whether to specialize in Financial Mathematics, Financial Economics or Actuarial Science.

Depending on the chosen specialization, core courses of the first term include Discrete Time Financial Mathematics, Asset Pricing and Derivatives. Other core courses include Practical Financial Engineering, which is designed to practice the implementation of modern financial techniques, and seminars, in which you will write and present papers and thereby prepare for the master's thesis. Seminars also make you familiar with current topics such as climate risk.

Courses from mathematics and statistics also constitute an important part of the program. Here you can choose among a wide range of topics, including courses on machine learning.

Some of the courses are fairly theoretical, others focus on applications, and many are in between. In the end, you will be equipped with both the theories and the skills to apply them. For example, you are also trained for GARP's Financial Risk Manager exam or the professional examination of the German Actuarial Society (DAV).

Professional perspectives

Through the program, students will gain a sound understanding of cutting-edge techniques used by financial institutions, consultants, regulators as well as fintechs, i.e., companies that offer new products based on modern technology. Topics of the program include valuation of derivatives, portfolio and risk management, insurance and data analytics. Graduates with a sound training in these areas are sought after on the job market. The program is also an excellent preparation for doctoral studies leading to a PhD.

Among employers, Ulm University has an excellent reputation for well-trained finance students. Many of our graduates work for global financial players (e.g. Bank of America or Allianz). And many of them have found a job in Germany even though they had no knowledge of German when they arrived.

Below we list a selection of optional courses that are on offer. You can find a complete list on our webpage.

(Financial) Mathematics and Statistics

Interest Rate Models, Time Series Analysis, Risk Theory, Mathematics of Machine Learning, Numerical Methods for Data Science, Advanced Statistics, Monte Carlo Methods, Causal Inference.

Financial Economics and Actuarial Science

Advanced Financial Intermediation, Credit Analysis, Insurance Economics, Investment and Risk Management, Risk Management in Insurance, Life-, Health- and Pension Mathematics

Quantitative Methods

Advanced Econometrics, Data Mining, Supervised Learning with Linear Systems, Pattern Recognition

You are also requested to attend language or cultural courses.

Master in Finance



- Degree: Master of Science
- Duration: 4 semesters
- Language of instruction: English
- Start: winter semester
- Admission requirements:

Applicants must have completed a Bachelor's degree (or an equivalent) in mathematics or in another quantitative and mathematically-orientated discipline from a recognized university. Applicants must have performed above average in the completed degree.

Good knowledge of the English language:

Minimum TOEFL score of 72 for the internet-based test

Minimum IELTS score of 5.5

Applicants who have completed a Bachelor taught in English or whose native language is English do not need to present a test certificate.

- www.uni-ulm.de/index.php?id=72296&L=1



Counselling Services



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Institute of Finance

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Email: mscfinance@uni-ulm.de

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Any questions...?

Should you have further questions concerning your course choice or our information services, please do not hesitate to contact us under www.uni-ulm.de/studieninteressierte



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Study plans

a) Study plan for Specialization in **Financial Mathematics** (CP is credit points)

Term	Mathematics	Financial Economics	Other	CP
1	Discrete Time Financial Mathematics (4 CP)	Asset Pricing (7 CP)	Additional Key Qualification (3 CP)	30
	Optional Modules (9 CP)	Optional Modules (7 CP)		
2	Continuous Time Financial Mathematics (4 CP)		Seminar I (4 CP)	30
	Stochastic Analysis (4 CP)		Practical Financial Engineering (4 CP)	
	Optional Modules (11 CP)		Additional Key Qualification (3 CP)	
3	Optional Modules (20 CP) at least 12 CP from Mathematics at least 4 CP from Financial Economics		Seminar II (4 CP)	30
			Risk Management Roundup (4 CP)	
			Additional Key Qualification (2 CP)	
4	Master's Thesis (30 CP)			30

b) Study plan for Specialization in **Financial Economics** (CP is credit points)

Term	Mathematics	Quantitative Methods	Financial Economics	Other	CP
1	Optional Modules (6 CP)		Derivatives (7 CP)	Additional Key Qualification (3 CP)	30
			Optional Modules (7 CP)		
			Asset Pricing (7 CP)		
2	Optional Modules (8 CP)		Optional Modules (11 CP)	Seminar I (4 CP)	30
				Practical Financial Engineering* (4 CP)	
				Additional Key Qualification (3 CP)	
3	Optional Modules (6 CP)		Optional Modules (14 CP)	Seminar II (4 CP)	30
				Risk Management Roundup (4 CP)	
				Additional Key Qualification (2 CP)	
4	Master's Thesis (30 CP)				30

*or Project Class in Asset Management

c) Study plan for Specialization in **Actuarial Science** (CP is credit points)

Term	Mathematics	Quantitative Methods	Financial Economics	Actuarial Science	Other	CP
1	Discrete Time Financial Mathematics (4 CP)		Derivatives (7 CP)	Optional Modules (9 CP)	Additional Key Qualification (3 CP)	30
			Optional Modules (7 CP)			
2	Optional Modules (10 CP)			Optional Modules (9 CP)	Seminar I (4 CP)	30
					Additional Key Qualification (3 CP)	
					Practical Actuarial Science (4 CP)	
3	Optional Modules (6 CP)			Optional Modules (7 CP)	Seminar II (4 CP)	30
					Risk Management Roundup** (4 CP)	
	Optional Modules (7 CP)				Additional Key Qualification (2 CP)	
4	Master's Thesis (30 CP)					30

**or Practical Financial Engineering