



„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

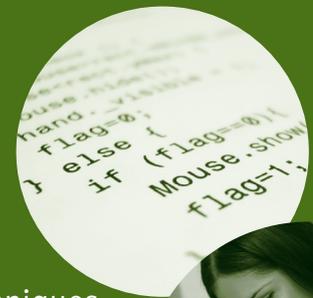
# Our international finance program...

... is quantitative and practical

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

... offers you to choose between a specialization in **Actuarial Science, Financial Economics or Financial Mathematics**

... 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 University is ranked in the top 10 percent of universities worldwide and 14 among all universities in its age group.
- 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 Actuarial Science, Financial Economics or Financial Mathematics.

Depending on the chosen specialization, core courses of the first term include Asset Pricing, Derivatives and Discrete Time Financial Mathematics. There are also compulsory practical courses, through which you will gain experience in implementing modern financial techniques. In seminars 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). Below we list a selection of optional courses that are on offer.

You can find a complete list on our webpage.

**Actuarial Science:** Actuarial Data Science, Asset Liability Management, Insurance Economics, Life-, Health- and Pension Mathematics, Risk Management in Insurance, Risk Theory I/II.

**Financial Economics:** Advanced Financial Intermediation, Blockchain Fundamentals, Credit Analysis, Financial Modeling, Investment and Risk Management.

**(Financial) Mathematics:** Advanced Statistics, Interest Rate Models, Mathematics of Machine Learning, Monte Carlo Methods, Numerical Finance, Statistical Learning, Time Series Analysis.

**Quantitative Methods:** Advanced Econometrics, Data Mining, Pattern Recognition

## 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. Allianz or Bank of America). And many of them have found a job in Germany even though they had no knowledge of German when they arrived.

### Master in Finance



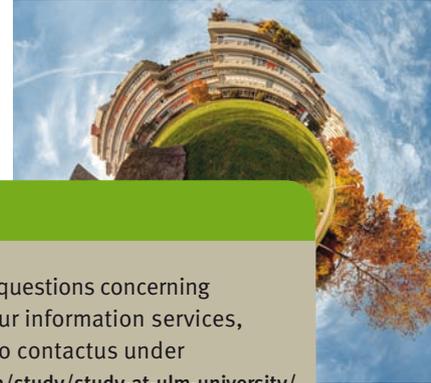
- Degree: Master of Science
- Duration: 4 semesters
- Language of instruction: English
- Start: winter semester
- Admission requirements:
  - Applicants must have completed a Bachelor's degree (or an equivalent) in mathematics or in another quantitative and mathematically-orientated discipline from a 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](http://www.uni-ulm.de/index.php?id=72296&L=1)



## Counselling Services



**Academic Counselling Finance**  
Institute of Finance  
Helmholtzstraße 18  
89081 Ulm  
Phone: +49 (0)731 50-23598  
Email: [mscfinance@uni-ulm.de](mailto:mscfinance@uni-ulm.de)  
Homepage: [http://www.uni-ulm.de/msc\\_finance](http://www.uni-ulm.de/msc_finance)



### Any questions...?

Should you have further questions concerning your course choice or our information services, please do not hesitate to contact us under <https://www.uni-ulm.de/en/study/study-at-ulm-university/>



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## Study plans

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

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

<sup>1</sup>or Practical Financial Engineering (4 CP)

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

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

<sup>2</sup>or Project Class in Asset Management (4 CP)

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

Term	Financial Economics	Mathematics	Other	CP	
1	Asset Pricing (7 CP)	Discrete Time Financial Mathematics (4 CP)	Additional Key Qualification (3 CP)	30	
	Optional Modules (7 CP)	Optional Modules (9 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