

Possible Tracks within Elective Courses - for Orientation

The table below should be understood as an indication only to help MSc QF students to set individual focus points in their curriculum.

The table contains examples of elective courses in the Master of Science UZH ETH in Quantitative Finance.

The list is not exhaustive, courses might change from term to term, and new courses might be developed / offered and might not yet be in the table. The table will be updated periodically. If you find a particular course, which is part of the MSc QF curriculum and not in the list, and are not sure where it would belong, please contact chantal.spale@df.uzh.ch.

Abbreviations:

- MF: course from area “Mathematical Methods in Finance”
- FIN: course from area “Finance”

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Please look at the table below

FALL SEMESTER

Track 1 Machine Learning, AI and Data in Finance	Track 2 Uncertainty and Risk Management	Track 3 Mathematical Topics in Finance	Track 4 Banking and Corporate Finance	Track 5 Insurance	Track 6 Portfolio Management and Asset Pricing
<i>Fall Semester</i>	<i>Fall Semester</i>	<i>Fall Semester</i>	<i>Fall Semester</i>	<i>Fall Semester</i>	<i>Fall Semester</i>
Advanced Machine Learning (ETH, MF, Fall)	Asset Liability Management and Treasury Risks (ETH, FIN, Fall)	Advanced Topics in Mathematical Finance (UZH, MF, Fall)	Accounting for Managers (ETH, FIN, Fall)	Life Insurance Mathematics (ETH, MF, Fall)	Asset Allocation and Alternative Investments (UZH, Fin, Fall)
Data Analytics in Organizations and Business (ETH, FIN, Fall)	Counterparty Credit Risk Management (UZH, FIN, Fall)	Introduction to Stochastic Optimal Control (ETH, MF, Fall)	Advanced Banking (UZH, Fin, Fall)		Institutional Investing (UZH, Fin, Fall)
Data Visualization in Finance (UZH, FIN, Fall)	Backtesting for Portfolio Management (UZH, FIN, Fall)	Mathematical Finance (ETH, MF, Fall)	Advanced CFA Investment Challenge (UZH, FIN, Fall)		Portfolio Management Theory I (UZH, FIN, Fall)
Deep Learning (ETH, MF, Fall)		Numerical Analysis of Stochastic Ordinary Differential Equations (ETH, MF, Fall)	Bank Treasury Management (UZH, FIN, Fall)		Portfolio Management Implementation I (UZH, FIN, Fall)
Digital Tools for Finance (UZH, FIN, Fall), not HS25		Seminar in Computational Finance for CSE (ETH, MF, Fall)	Corporate Finance (PhD Course) (UZH, FIN, Fall)		
Foundations of Data Science (UZH, MF, Fall), not HS25		Stochastic Simulation (ETH, MF, Fall)	CFA Investment Challenge (UZH, FIN, Fall)		
Monetary Policy and Financial Markets (UZH, FIN, Fall)			Environmental and financial sustainability (UZH, FIN, Fall)		
Probabilistic Artificial Intelligence (ETH, MF, Fall)			Financial and Managerial Accounting Bootcamp (UZH, FIN, Fall)		

Track 1 Machine Learning, AI and Data in Finance	Track 2 Uncertainty and Risk Management	Track 3 Mathematical Topics in Finance	Track 4 Banking and Corporate Finance	Track 5 Insurance	Track 6 Portfolio Management and Asset Pricing
			Impact Investing and Financial Inclusion (UZH, Fin, Fall)		
			Interdisziplinäres Seminar Mergers and Acquisitions (UZH, Fin, Fall)		
			Monetary Policy (ETH, Fin, Fall)		
			Principles of Macroeconomics (ETH, Fin, Fall)		
			Seminar Corporate Governance (UZH, FIN, Fall)		

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<i>Courses in 2 tracks</i>	<i>Courses in 2 tracks</i>	<i>Courses in 2 tracks</i>	<i>Courses in 2 tracks</i>	<i>Courses in 2 tracks</i>	<i>Courses in 2 tracks</i>
Applied Quantitative Finance (UZH, Fin, Fall)					Applied Quantitative Finance (UZH, Fin, Fall)
	Bank Treasury Management (UZH, Fin, Fall)		Bank Treasury Management (UZH, Fin, Fall)		
	Behavioral Economics: an introduction course (UZH, Fin, Fall)		Behavioral Economics: an introduction course (UZH, Fin, Fall)		
	Behavioral Decision Theory and Financial Derivatives (UZH, FIN, Fall)		Behavioral Decision Theory and Financial Derivatives (UZH, FIN, Fall)		
	Dynamic Programming and Optimal Control (ETH, MF, Fall)				Dynamic Programming and Optimal Control (ETH, MF, Fall)
				Financial Risk Management (ETH, MF, Fall)	Financial Risk Management (ETH, MF, Fall)
			Impact Investing and Financial Inclusion (UZH, FIN, Fall)		Impact Investing and Financial Inclusion (UZH, FIN, Fall)
			Investment Process in Practice – Fundamentals and Applications (UZH, FIN, Fall)		Investment Process in Practice - Fundamentals and Applications (UZH, FIN, Fall)

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Power Market 1 – Portfolio and Risk Management (ETH, Fin, Fall)	Power Market 1 Portfolio and Risk Management (ETH, Fin, Fall)				
Responsible Machine Learning with Insurance Applications (ETH, MF, Fall)				Responsible Machine Learning with Insurance Applications (ETH, MF, Fall)	
	Risk and Insurance Economics (ETH, FIN, Fall)			Risk and Insurance Economics (ETH, FIN, Fall)	
		Time Series Analysis (ETH, MF, Fall)	Time Series Analysis (ETH, MF, Fall)		
	Stress Testing of Banks (UZH, FIN, Fall)		Stress Testing of Banks (UZH, FIN, Fall)		
	Topics of Applied Risk Management (UZH, MF, Fall)		Topics of Applied Risk Management (UZH, FM, Fall)		

SPRING SEMESTER

Track 1 Machine Learning, AI and Data in Finance	Track 2 Uncertainty and Risk Management	Track 3 Mathematical Topics in Finance	Track 4 Banking and Corporate Finance	Track 5 Insurance	Track 6 Portfolio Management and Asset Pricing
<i>Spring Semester</i>	<i>Spring Semester</i>	<i>Spring Semester</i>	<i>Spring Semester</i>	<i>Spring Semester</i>	<i>Spring Semester</i>
Decentralized Finance (ETH, MF, Spring) does not take place in spring 2026	Introduction to Operations Research: Stochastic Models (UZH, MF, Spring)	Brownian Motion and Stochastic Calculus (ETH, MF, Spring)	Advanced Banking (UZH, Fin, Fall)	Stochastic Loss Reserving Methods (ETH, MF, Spring)	Economic Theory of Financial Markets (ETH, FIN, Spring)
Foundations of Reinforcement Learning (ETH, Spring)	The Risk and Finance Lab (UZH, FIN, Spring)	Seminar in Computational Finance for CSE (ETH, MF, Spring)	Advanced Corporate Finance II (UZH, FIN, Spring)		Investments – Selected Quantitative Tools (UZH, MF, Spring)
Introduction to Machine Learning (ETH, MF, Spring)			Advanced Valuation (UZH, FIN, Spring)		Portfolio Management Implementation II (UZH, FIN, Spring)
Machine Learning for Finance and Complex Systems (ETH, MF, Spring)			Applied Product Management in Banking (UZH, Fin, Spring)		Portfolio Management Theory II (UZH, FIN, Spring)
			Financial Economics (ETH, Fin, Spring)		Quantitative Asset Management & Systematic Investing (UZH, MF, Spring)
			Market Microstructure (UZH, Fin, Spring)		Quantitative Portfolio Management with Python (UZH, Fin, Spring)
			Takeovers, Restructuring and Corporate Governance (UZH, Fin, Spring)		Asset Pricing (UZH, Fin, Spring, doctoral course)

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			Theory of Financial Intermediation and Banking (UZH, Fin, Spring)		

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<i>Courses in 2 tracks</i>	<i>Courses in 2 tracks</i>	<i>Courses in 2 tracks</i>	<i>Courses in 2 tracks</i>	<i>Courses in 2 tracks</i>	<i>Courses in 2 tracks</i>
Crunchpoints in seriously large banking/payment-IT-projects (UZH, FIN, Spring)			Crunchpoints in seriously large banking/payment-IT-projects (UZH, FIN, Spring)		
Data Science for Actuaries (ETH, FIN, Spring)				Data Science for Actuaries (ETH, Fin, Spring)	
		Derivatives Portfolio Valuation (UZH, MF, Spring)			Derivatives Portfolio Valuation (UZH, MF, Spring)
	Economic Growth, Cycles and Policy (ETH, FIN, Spring)		Economic Growth, Cycles and Policy (ETH, Fin, Spring)		
		Economic and Market-Consistent Actuarial Valuation (ETH, MF, Spring) (does not take place in FS 2026)			Economic and Market-Consistent Actuarial Valuation (ETH, MF, Spring) (does not take place in FS 2026)
Investing in the Age of AI (UZH, Fin, Spring)					Investing in the Age of AI (UZH, FIN, Spring)
Power Market II Modelling and Strategic Positioning (ETH, Fin, Spring)	Power Market II Modelling and Strategic Positioning (ETH, Fin, Spring)				
		Optimization Methods in Finance (UZH, Fin, Spring)			Optimization Methods in Finance (UZH, Fin, Spring)
	Reinsurance Analytics (ETH, MF, Spring)			Reinsurance Analytics (ETH, MF, Spring)	

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	Real Estate Finance (UZH, Fin, Spring)		Real Estate Finance (UZH, Fin, Spring)		
			Sentiment Analytics (UZH, FIN, Spring)		Sentiment Analytics (UZH, FIN, Spring)
			Sustainable Investing (UZH, Fin, Spring)		Sustainable Investing (UZH, Fin, Spring)