FH Salzburg

Course Syllabus

Study programm	Business Management
Course code	BWIB2POPIL
Course title	Portfolio Optimization
Term / year of study when the course is delivered	Spring/Summer Term
Cycle	1st cycle
ECTS credits / contact hours	5 / 28
Teaching units (hours/week - SWS)	2
Course type	ILV (Interactive lecture)
Prerequisites	B2 level in English, basic understanding of organizational structures and management functions
Language of instruction	English

Course content	The course aims to introduce students to the theoretical framework and empirical methods of portfolio optimization. Contents of the course include:
	• Modern portfolio theory
	• Parametrization of return, risk and dependencies
	• Portfolio optimization
	• Portfolio simulations
	  ○ Historical simulation
	  ○ Monte Carlo simulation
	• Implications and recommendations
	This lecture focuses on the practical application of the taught approaches. Further the course provides a

	platform to discuss the current developments in financial markets.
Learning outcomes	By the end of this course, students are able to: • Understand and apply the methods of portfolio theory • Deal with the most important questions of the parameterization of the models • Perform parametrizations of models using current capital market data using Excel • Carry out optimizations with different constraints using Excel • Critically question the results • Understand common simulation methods
Learning methods	Mixture of lectures, in-class participation, group work, and case studies using Excel
Assessment methods & criteria	• Group presentation of a portfolio optimization process conducted over several weeks • Seminar paper about a portfolio optimization process conducted over several weeks • In-class participation
Grading Scale	1 Excellent 100 - 93% 2 Good 83 - 92% 3 Good average 70 - 82% 4 Below average 50 - 69% 5 Insufficient < 50%
Recommended resources	• Benninga, S. (2014): Financial modeling. 4th ed. MIT Press • Brown, K.C., Reilly, F.K., Leeds, S. (2018): Investment Analysis and Portfolio Management. 11th ed. Cengage Learning
Attendance	75%

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