

Syllabus

Course Description

Course Title	Financial Risk Management
Course Code	27343
Course Title Additional	
Scientific-Disciplinary Sector	ECON-09/B
Language	German
Degree Course	Bachelor in Economics and Management
Other Degree Courses (Loaned)	
Lecturers	Prof. Dr. Peter Alfons Schmid, PeterAlfons.Schmid@unibz.it https://www.unibz.it/en/faculties/economics-management/academic-staff/person/44766
Teaching Assistant	
Semester	First semester
Course Year/s	3
CP	6
Teaching Hours	36
Lab Hours	-
Individual Study Hours	-
Planned Office Hours	
Contents Summary	This is an introductory course on risk management and financial products. The main contents are the mechanics and pricing of derivatives (forwards, futures, swaps and options). Students will be equipped with the knowledge of how to use such derivatives for risk management.
Course Topics	Functioning of futures markets; hedging strategies; determination of forward and future prices; swaps; functioning of options markets; trading strategies with options; Binomial trees; Vienna processes; Black-Scholes-Merton model;

	options on stock indices, currencies and futures; the "Greeks".
Keywords	Unconditional forward transactions (forwards and futures), swaps, options, binomial trees, Black-Scholes-Merton model, "Greeks"
Recommended Prerequisites	
Propaedeutic Courses	
Teaching Format	Lectures
Mandatory Attendance	Not mandatory, but recommended
Specific Educational Objectives and Learning Outcomes	<p>Knowledge and understanding</p> <p>Area: Quantitative methods for decision-making</p> <p>Mastery of basic and intermediate mathematical tools for understanding and analysing economic mechanisms using theoretical models and empirical applications</p> <p>Knowledge of tools for statically, dynamically and comparatively analysing data on individuals, companies and the economy</p> <p>Knowledge and understanding of descriptive statistics, the basics of probability theory and sampling methods, standard distributions and their application to economic analyses as well as linear and non-linear regression</p> <p>Knowledge of parametric estimation and hypothesis testing</p> <p>Knowledge of the computer tools required for reading and analysing economic data and models</p> <p>Knowledge of the structure of computer networks, their most important applications and security techniques as well as techniques for collecting, visualising and analysing data using suitable software</p> <p>Knowledge of international accounting systems and double-entry bookkeeping for recording and evaluating business transactions</p> <p>Understanding of annual financial statements</p> <p>Thorough knowledge of accounting data collection or management control</p> <p>Knowledge of the analysis method for estimating present values and discount factors for estimating the cost of capital and the valuation of bonds and shares</p> <p>Knowledge of the methods of medium and long-term financial forecasting and sensitivity analysis with simulation under uncertainty for risk management in the area of corporate and international finance</p>

	<p>Knowledge and understanding of the international financial environment, multinational risk defence techniques and competitive strategies of global banks</p> <p>Knowledge of the mechanisms underlying effective communication of quantitative topics in three languages: Italian, German and English</p> <p>Ability to apply knowledge and understanding</p> <p>Area: Quantitative methods for decision making</p> <p>Ability to analyse problems in (unconstrained) optimisation and mathematical interpretation of models of social and economic dynamics</p> <p>be able to formalise and solve economic problems using mathematical models and interpret the results conceptually</p> <p>be able to analyse economic data using methods of descriptive, parametric and non-parametric statistics as well as linear and non-linear regression and interpret the results</p> <p>be able to apply international accounting standards to the various contexts of corporate reality</p> <p>Know how to derive and interpret economic information from the Internet</p> <p>Know how to use computers and computer networks to analyse large amounts of data to solve complex problems and to write dissertations and articles</p> <p>Know how to use spreadsheet programmes to value fixed-interest financial instruments and shares in listed companies</p> <p>be able to analyse financial statements using financial ratios and communicate the results in accordance with international professional standards</p> <p>be able to apply the most important theories about capital, foreign exchange and commodity markets to current observational data, including international data</p> <p>Knowledge of how to set up and carry out an empirical project using econometric software and financial or economic databases</p> <p>Be able to apply techniques to evaluate the performance of financial assets and understand the pricing mechanisms of high-risk financial assets and of spot and forward interest rates</p> <p>Ability to use basic and intermediate mathematical and statistical tools to investigate the behaviour of economic agents from a theoretical and empirical perspective</p>
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	<p>Knowledge of analysing economic data using spreadsheets or other suitable software</p> <p>knowledge of the use of computerised tools for analysing economies</p> <p>be able to communicate the results of quantitative analyses carried out according to international professional standards in three languages: Italian, German and English</p> <p>Making judgements</p> <p>make a critical analysis of the facts and the situations to be dealt with</p> <p>select the most appropriate quantitative and qualitative methods of analysis</p> <p>combine information and analytical methods, also using modern software packages, within the framework of a logical argumentation in order to find a solution</p> <p>Learning skills</p> <p>critically analyse and integrate data, information and future experiences, also using advanced software packages</p>
Specific Educational Objectives and Learning Outcomes (additional info.)	
Assessment	Written examinations
Evaluation Criteria	<p>Written examinations after 50% and at the end of the semester.</p> <p>1st session: Assessment based on the mid-term exam (33.33%) and the final exam (66.67%). Without participation in the mid-term exam: final exam (100%).</p> <p>2nd or 3rd session: final exam always 100%.</p> <p>Minimum points for a positive final examination: 18 out of 30+ points.</p>
Required Readings	John Hull: Options, Futures and Other Derivatives, Pearson, 11th edition, 2022.
Supplementary Readings	

Further Information	
Sustainable Development Goals (SDGs)	Quality education, Responsible consumption and production, Industry, innovation and infrastructure, Decent work and economic growth