

# Syllabus

## *Kursbeschreibung*

<b>Titel der Lehrveranstaltung</b>	Ökonometrie für Finanzwirtschaft
<b>Code der Lehrveranstaltung</b>	27348
<b>Zusätzlicher Titel der Lehrveranstaltung</b>	
<b>Wissenschaftlich-disziplinärer Bereich</b>	ECON-05/A
<b>Sprache</b>	Italienisch
<b>Studiengang</b>	Bachelor in Wirtschaftswissenschaften und Betriebsführung
<b>Andere Studiengänge (gem. Lehrveranstaltung)</b>	
<b>Dozenten/Dozentinnen</b>	dr. Greta Goracci, Greta.Goracci@unibz.it <a href="https://www.unibz.it/en/faculties/economics-management/academic-staff/person/46136">https://www.unibz.it/en/faculties/economics-management/academic-staff/person/46136</a>
<b>Wissensch. Mitarbeiter/Mitarbeiterin</b>	
<b>Semester</b>	Zweites Semester
<b>Studienjahr/e</b>	3
<b>KP</b>	6
<b>Vorlesungsstunden</b>	36
<b>Laboratoriumsstunden</b>	18
<b>Stunden für individuelles Studium</b>	-
<b>Vorgesehene Sprechzeiten</b>	18
<b>Inhaltsangabe</b>	<p>The course covers various topics related to modelling and time series analysis, with the aim of studying and interpreting economic and financial phenomena.</p> <p>It is structured around three main areas:</p> <p>(1) the linear regression model</p> <p>(2) the ARIMA models; and</p> <p>(3) models for volatility analysis.</p>

	Each topic is presented in depth from a theoretical point of view theoretical perspective and the main practical applications are discussed. The course includes guided exercises to support understanding of key concepts as well as practical analysis of real data sets using R software.
<b>Themen der Lehrveranstaltung</b>	--
<b>Stichwörter</b>	--
<b>Empfohlene Voraussetzungen</b>	--
<b>Propädeutische Lehrveranstaltungen</b>	
<b>Unterrichtsform</b>	--
<b>Anwesenheitspflicht</b>	No obligation to attend, however attendance recommended
<b>Spezifische Bildungsziele und erwartete Lernergebnisse</b>	<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 through theoretical models and empirical applications.</p> <p>Knowledge of the tools for static, dynamic and comparative analysis of data on individuals, businesses 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 analysis, as well as linear and non-linear regression.</p> <p>Knowledge of parametric estimation and hypothesis testing</p> <p>Knowledge of computer tools necessary 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 data collection, visualisation and analysis using appropriate 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 cost of capital and valuation of bonds and shares.</p> <p>Knowledge of medium and long-term financial forecasting methods 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 (unconstrained) optimisation problems and mathematically interpret 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 descriptive, parametric and non-parametric statistical methods 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 business reality</p> <p>be able to derive and interpret economic information from the Internet</p> <p>be able to use computers and computer networks to analyse large quantities of data to solve complex problems and to write dissertations and articles</p> <p>be able to use spreadsheet programmes to evaluate fixed-rate financial instruments and shares of listed companies</p> <p>be able to analyse financial statements using financial ratios and communicate the results according to international professional standards</p> <p>be able to apply the most important theories of capital, foreign exchange and commodity markets to current observational data, including international data</p> <p>know how to set up and implement an empirical project using econometric software and financial or economic databases</p> <p>Be able to apply techniques to assess the performance of financial</p>
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	<p>assets and understand the pricing mechanisms of risky financial assets and spot and forward interest rates</p> <p>Ability to use basic and intermediate mathematical and statistical tools to study the behaviour of economic agents from a theoretical and empirical perspective.</p> <p>Knowledge of economic data analysis using spreadsheets or other appropriate software.</p> <p>Knowledge of the use of computer tools for analysing economies 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>Autonomy of judgement</p> <p>choose the most appropriate quantitative and qualitative methods of analysis</p> <p>find the necessary information in databases, legal sources and scientific literature</p> <p>use logical reasoning to combine information and analytical methods, also using modern software packages, to arrive at a solution.</p> <p>Learning skills</p> <p>retrieve information from databases, scientific literature, laws and regulations as required in professional life</p> <p>analysing, critically processing and integrating data, information and future experience, also using advanced software</p>
<b>Spezifisches Bildungsziel und erwartete Lernergebnisse (zusätzliche Informationen)</b>	--
<b>Art der Prüfung</b>	--
<b>Bewertungskriterien</b>	--
<b>Pflichtliteratur</b>	<p>Jim H. Stock and Mark W. Watson, Introduction to Econometrics, Pearson International 4th Edition.</p>
<b>Weiterführende Literatur</b>	--
<b>Weitere Informationen</b>	--

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Ziele für nachhaltige Entwicklung (SDGs)	Geschlechter-Gleichheit, Hochwertige Bildung
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