Freie Universität Bozen
Libera Università di Bolzano
Università Liedia de Bulsan

Syllabus
Course description

Course title	Econometrics for Finance
Course code	27348
Scientific sector	SECS-P/05
Degree	Bachelor in Economics and Management
Semester and academic year	2nd semester 2021/2022
Year	3
Credits	7
Modular	No

Total lecturing hours	36
Total lab hours	-
Total exercise hours	
Attendance	Suggested, but not required
Prerequisites	Attendance of "Statistics", "Mathematics for Economics" (A and B), and "Financial Analysis" is suggested in order to properly follow these lectures.
Course page	https://www.unibz.it/it/faculties/economics-management/bachelor-economics-management/

Specific educational objectives	The course refers to the complementary educational activities and belongs to the scientific area of Economics. The course covers the essential tools of econometrics before moving to financial econometrics and empirical finance. It provides a review of the classical linear regression model and focuses on its estimation and interpretation. Financial assets, prices, returns and volatility are subsequently considered and modelled. Specific educational objectives include: - Ability to interpret econometric results and draw appropriate conclusions. - Ability to apply theoretical and empirical models to real world problems. - Learn specialised statistical/econometric software to perform econometric analysis. - Ability to efficiently plan and manage independently economic and financial studies. - Enhance organisational, analytical and communication skills through participation in group project work.

Lecturers	Eduardo Rossi Office: e-mail: edrossi@unibz.it

Scientific sector of the lecturer	SECS-P/05
Teaching language	English
Office hours	21 hours Cockpit – students' zone – individual timetable Webpage: https://www.unibz.it/timetable/?sourceId=unibz&department=26&degree=13140%2C13181
Lecturing assistant	TBD
Teaching assistant	TBD
Office hours	none
List of topics covered	Review of matrix algebra and basic statistics, Linear Regression with a Single Regressor and with Multiple Regressors, Hypothesis Tests and Confidence Intervals in Linear Regression Models. Capital Asset Pricing Model. Regression diagnostics. Models and methods for predicting future returns (by Classical Linear Regression and ARMA models): specification, inference and forecasting. Models for volatility analysis and prediction (ARCH and GARCH models): specification, inference and forecasting.
Teaching format	Frontal lectures

Learning outcomes	**Knowledge and understanding** The aim of the course is to equip students with a working knowledge of important econometric techniques used in international finance and financial economics. Students should be able to correctly specify, estimate and test the econometric models and to interpret properly results from the undertaken analyses. **Applying knowledge and understanding** Ability to perform econometric analysis. Students know how to use essential tools for working with economic and financial data. Ability to perform all the mentioned econometric techniques by using appropriate software. **Making judgments** Ability to formulate models and to implement appropriate econometric tools for the of financial data. **Communication skills** Ability to present in a consistent and precise manner the results obtained from the econometric analysis. **Learning skills** Ability to understand and analyze financial data from a quantitative perspective.

Assessment	*The final exam consists of* a project to be carried out in groups of 2 students, leading to a written report and its

	oral presentation. The assessment of the knowledge of the theory will take place during the presentation.
Assessment language	English
Evaluation criteria and criteria for awarding marks	Final grade is determined by the empirical project, its presentation and the knowledge of theory. The purpose of the exam is to ascertain that students acquire the knowledge required to correctly use the econometric tools discussed during the lectures and possess the ability to properly interpret the results provided by these procedures. The assignment also tests students' ability to - work in team - collect and process data - make critical comparisons and judgements - undertake effective quantitative problem-solving - deliver technical presentations.

Required readings	Jim H. Stock and Mark W. Watson, *Introduction to Econometrics*, Pearson International 4th Edition.
Supplementary readings	Further references will be given in class