Syllabus

Course Description

Course Title	Statistical and econometric analysis with R
Course Code	89162
Course Title Additional	
Scientific-Disciplinary Sector	STAT-01/A
Language	Italian
Degree Course	Studium Generale - basic course
Other Degree Courses (Loaned)	
Lecturers	dr. Greta Goracci, Greta.Goracci@unibz.it https://www.unibz.it/en/faculties/economics-management/academic-staff/person/46136
Teaching Assistant	
Semester	First semester
Course Year/s	1
CP	3
Teaching Hours	18
Lab Hours	0
Individual Study Hours	0
Planned Office Hours	
Contents Summary	Descriptive statistics – inference – the regression model – time series analysis – an introduction to RMarkdown – an introduction to LaTeX
Course Topics	– Descriptive statistics – Inference – The regression model – Time series analysis – Introduction to RMarkdown – Introduction to LaTeX
Keywords	

Recommended Prerequisites	
Propaedeutic Courses	basic course in statistics and/or econometrics
Teaching Format	Lectures, tutorials, practical sessions, projects.
Mandatory Attendance	no
Specific Educational Objectives and Learning Outcomes	By the end of the course, students will have gained an understanding of the main principles of statistics and time series analysis and will be able to carry out an analysis of real-world data using the statistical software R. Furthermore, students will demonstrate the ability to present their results professionally and effectively by drafting a scientific report, using LaTeX and/or RMarkdown. In particular, the course's learning objectives are • To carry out preliminary analyses of data • To visualise and understand the relationships between data • To apply the appropriate tools of probability theory and statistical inference to extract useful information • To make decisions based on information derived from the data • To present the results obtained in a professional manner
Specific Educational Objectives and Learning Outcomes (additional info.)	Knowledge and understanding: • Be familiar with the main statistical and econometric analysis tools for different types of data Ability to apply knowledge and understanding: • Manipulate and summarise data • Apply statistical methods to real-world datasets using the statistical software R • Interpret the results obtained from statistical or econometric analysis Transversal skills / soft skills: • Collaborate within a working group Independence of judgement: • Think critically and make decisions based on appropriate analysis Communication skills: ¿ Effectively communicate the results obtained, even to a non-specialist audience
Assessment	Oral examination and project work: an oral examination comprising assessment questions and a term paper involving group work with a practical component

Evaluation Criteria	A single final mark will be awarded. In particular, the following aspects will be assessed: • Ability to apply the knowledge acquired to a real-world dataset • Ability to analyse and interpret the results • Ability to work collaboratively • Clarity in presenting the results obtained
Required Readings	
Supplementary Readings	
Further Information	
Sustainable Development Goals (SDGs)	