Syllabus

Course Description

Course Title	Preparatory course in Mathematics - Mathematics for Economists
Course Code	30152
Course Title Additional	
Scientific-Disciplinary Sector	STAT-04/A
Language	English
Degree Course	Bachelor in Tourism, Sport and Event Management
Other Degree Courses (Loaned)	
Lecturers	Dott. Benjamin Weißing, Benjamin.Weissing@unibz.it https://www.unibz.it/en/faculties/economics-management/academic-staff/person/35796
Teaching Assistant	
Semester	Not defined
Course Year/s	not defined
CP	0
Teaching Hours	20
Lab Hours	-
Individual Study Hours	-
Planned Office Hours	0
Contents Summary	This course offers a review of key mathematical concepts to support students as they begin undergraduate studies in economics. It covers mathematical logic, sets, number systems, fractions, polynomials, powers, logarithms, and basic combinatorics. The course also revisits solving equations and inequalities, working with algebraic expressions, and analysing and graphing elementary real functions such as quadratic, polynomial, rational and exponential functions. The course combines short lectures with exercises and active participation to reinforce understanding.

Course Topics	Numbers, fractions, decimals, and percentages Exponents and radicals Algebraic expressions: simplification, expansion, and factorisation Equations, including linear and quadratic equations Inequalities and solution sets Coordinate geometry: Cartesian coordinates, lines, slopes, and intercepts Functions and graphs: notation, domain, range, and graphical interpretation Polynomial functions, with emphasis on linear and quadratic functions Exponential and logarithmic functions Elementary counting methods Basic probability and interpretation of probabilities
Keywords	mathematical foundations,algebraic manipulation,problem-solving,graphical interpretation,functional relationships,equation solving
Recommended Prerequisites	
Propaedeutic Courses	
Teaching Format	Synchronous in person lecture and exercises
Mandatory Attendance	optional course, no mandatory attendance
Specific Educational Objectives and Learning Outcomes	ILO (Intended Learning Outcomes) ILO 1 - Knowledge and understanding ILO 1.1 Basic mathematical concepts (sets and operations on sets, relationships and their properties, general functions, numbers and elementary equations/inequalities) ILO 1.5 Mathematical terminology in English. ILO 2 - Ability to apply knowledge and understanding ILO 2.1 Basic concepts useful for attending courses in economics, business administration and management
Specific Educational Objectives and Learning Outcomes (additional info.)	
Assessment	A written test (ILO 1-2) serves to assess students' initial knowledge in mathematics. If the assessment is negative, the student will be assigned additional educational requirements (OFA)

	to be fulfilled within the first study year.
Evaluation Criteria	Correctness of answers in the written test.
Required Readings	• none
Supplementary Readings	
Further Information	
Sustainable Development Goals (SDGs)	Quality education