Syllabus

Kursbeschreibung

Titel der Lehrveranstaltung	Preparatory course in Statistics
Code der Lehrveranstaltung	27425
Zusätzlicher Titel der Lehrveranstaltung	
Wissenschaftlich-disziplinärer Bereich	STAT-01/A
Sprache	Englisch
Studiengang	Master in Politik öffentlicher Institutionen und innovative Governance
Andere Studiengänge (gem. Lehrveranstaltung)	
Dozenten/Dozentinnen	Dott. Marta Nai Ruscone, Marta.NaiRuscone@unibz.it https://www.unibz.it/en/faculties/economics-management/academic-staff/person/39746
Wissensch. Mitarbeiter/Mitarbeiterin	
Semester	Erstes Semester
Studienjahr/e	1
KP	0
Vorlesungsstunden	36
Laboratoriumsstunden	-
Stunden für individuelles Studium	-
Vorgesehene Sprechzeiten	-
Inhaltsangabe	The course is designed to acquire or review the core competencies in Statistics and Probability, necessary to more advanced topics (descriptive statistics, probability, random variables and inferential statistics).
Themen der	• Descriptive Statistics: Frequency tables;

Lehrveranstaltung	• Summary Statistics (measures of central tendency and dispersion); • Graphical tools; • Introduction to bivariate analysis; • Probability: events, counting rules and classic definition, additive and multiplicative rule, conditional probability and independence; • Discrete and continuous random variables, probability distributions and expected values; • Central Limit theorem and its applications. • Introduction to inferential statistics.
Stichwörter	Descriptive and summary statistics; bivariate analysis; probability; discrete and continuous random variables; probability distributions and expected values; central limit theorem, inferential statistics.
Empfohlene Voraussetzungen	None
Propädeutische Lehrveranstaltungen	None
Unterrichtsform	Frontal lectures and exercises
Anwesenheitspflicht	Attendance is suggested, but not required. Students without a background in Statistics and Probability are strongly recommended to attend the "preparatory course" in Statistics and Probability organized at the beginning of the first semester.
Spezifische Bildungsziele und erwartete Lernergebnisse	• Knowledge and understanding: Students learn the basics of probability and statistical theory. • Applying knowledge and understanding: Students develop the ability to analyze real data by exploiting via tables, graphical tools, and data summaries. • Making judgments: Ability to describe and discuss specific economic issues with a critical point of view by analysing data or evaluating probabilities. • Communication skills: Ability to present in a consistent and precise way the results obtained from the statistical or probabilistic analysis. • Learning skills: Ability to understand and analyse the economic data from a quantitative perspective.
Spezifisches Bildungsziel	Students successfully attending the course will be able to i)

und erwartete Lernergebnisse (zusätzliche Informationen)	explore, visualize, and interpret different types of data by producing graphs and computing numerical data summaries, ii) describe empirical phenomena through probability and random variables, and use basic theorems to manipulate them.
Art der Prüfung	A final written exam with both closed and open questions.
Bewertungskriterien	The test will have no negative consequences, as it is aimed at making aware students of their own knowledge. In case of "not-passed" outcome, the student could decide with the lecturer how to improve his/her knowledge.
Pflichtliteratur	- P. Newbold, W. L. Carlson, B. M. Thorne, Statistics for Business and Economics – Global Edition, Pearson, New York, 2023, 10th Ed.. ISBN 978-12-924-3684-5. Chapters 1-5. - Additional teaching material (slides, past exams) will be available on a web folder at the beginning of the course. - Further readings will be announced during the course.
Weiterführende Literatur	
Weitere Informationen	
Ziele für nachhaltige Entwicklung (SDGs)	Nachhaltiger Konsum und Produktion, Menschenwürdige Arbeit und Wirtschaftswachstum