Syllabus

Kursbeschreibung

Titel der Lehrveranstaltung	Forschungsmethoden und Design von Experimenten
Code der Lehrveranstaltung	31002
Zusätzlicher Titel der Lehrveranstaltung	
Wissenschaftlich-disziplinärer Bereich	STAT-01/A
Sprache	Englisch
Studiengang	Master in Tourismusmanagement
Andere Studiengänge (gem. Lehrveranstaltung)	
Dozenten/Dozentinnen	Prof. Alessandro Casa, Alessandro.Casa@unibz.it https://www.unibz.it/en/faculties/economics-management/academic-staff/person/46549 Dott. Dimitri Storai, Dimitri.Storai@unibz.it https://www.unibz.it/en/faculties/economics-management/academic-staff/person/46058
Wissensch. Mitarbeiter/Mitarbeiterin	
Semester	Zweites Semester
Studienjahr/e	1
KP	6
Vorlesungsstunden	36 Prof. Alessandro Casa
Laboratoriumsstunden	12 EXE Dott. Dimitri Storai
Stunden für individuelles Studium	-
Vorgesehene Sprechzeiten	18 Prof. Alessandro Casa
Inhaltsangabe	The course offers a comprehensive introduction to empirical research methods, covering both qualitative and quantitative approaches. It guides students through the entire research

	process, from designing studies and developing questionnaires to applying appropriate sampling techniques and collecting data. Key statistical topics include descriptive statistics, data visualization, statistical inference, bivariate analysis such as correlation and contingency tables, linear and logistic regression models and their extensions. Basic concepts of statistical programming are also introduced, with a focus on practical applications using R.
Themen der Lehrveranstaltung	- Review of basic statistical concepts: descriptive statistics, key definitions, classification of variables, frequency distributions, graphical representations, measures of central tendency and variability, random variables, sample statistics, confidence intervals and hypothesis testing. - Data: types, sources, and quality. - Sample surveys: objectives, phases, and potential sources of bias. - Sampling techniques: probabilistic vs. non-probabilistic sampling, advantages and disadvantages of different schemes. - Survey design: formulation and types of questions, modes of administration, scaling techniques, assessment of internal consistency. - Experimental studies and randomized controlled trials. - Introduction to multivariate analysis: contingency tables, covariance and correlation. - Linear regression and extensions: simple and multiple regression, model estimation and evaluation, model assumptions, inferential tools, qualitative predictors, interaction effects.
Stichwörter	statistics, multivariate analysis, sampling techniques, sample surveys, experimental studies, regression
Empfohlene Voraussetzungen	No formal prerequisites are required. Nonetheless, knowledge of basic concepts in descriptive and inferential statistics is useful, and attending a pre-course in mathematics/statistics is recommended.
Propädeutische Lehrveranstaltungen	
Unterrichtsform	In-person lectures and exercises. Whenever possible, lectures will be structured to prioritize in-class time for discussions, and practical applications.
Anwesenheitspflicht	_
Spezifische Bildungsziele	INTENDED LEARNING OUTCOMES (ILO)

und erwartete Lernergebnisse	ILO 1: KNOWLEDGE AND UNDERSTANDING ILO1.1 The student acquires the competence to understand and quantitatively analyse tourism phenomena in order to support business decision-making processes. ILO 1.2 The student acquires the ability to interpret and use synthetic indicators of interest for the economic and market development policies of tourist destinations as well as of individual enterprises in the sector. ILO 1.3 The student understands and uses statistical-quantitative methodologies for the description, monitoring and evaluation of problems characterising the tourism system. ILO 2: AUTONOMY OF JUDGEMENT ILO 2.1 Acquire the ability to select data and use appropriate information to describe a problem concerning the management of tourism enterprises as well as tourism associations and destinations ILO 3: COMMUNICATION SKILLS ILO 3.1 The Master's degree graduate will be able to communicate effectively in oral and written form the specialised content of the individual disciplines, using different registers depending on the recipients and the communicative and didactic purposes, and to evaluate the formative effects of his/her communication. Written and oral communication skills are particularly developed in the training activities carried out for the preparation of the Master's thesis, in the discussion of business cases and in interactive lectures involving group discussions and the comparison of individual analyses. ILO 4: LEARNING SKILLS ILO 4.1 To identify thematic connections and to establish relationships between different cases and contexts of analysis ILO 4.2 To frame a new problem systematically and generate appropriate taxonomies. ILO 4.3 To develop general models from the phenomena studied.
Spezifisches Bildungsziel und erwartete Lernergebnisse (zusätzliche	

Informationen)	
Art der Prüfung	Written exam with practical exercises, review questions and interpretation of output from statistical softwares. Assessment criteria are the same for both attending and non-attending students. All ILOs are assessed (ILO 1-4)
Bewertungskriterien	Assessment of Written final exam is based on the following criteria: correctness and completeness of answers, ability to read and interpret the data analysis output correctly, clarity of explanations and comments.
Pflichtliteratur	Agresti, A. Statistical Methods for the Social Sciences. Pearson, 2018. For each topic, slides and exercise sheets will be provided by the professor.
Weiterführende Literatur	James, G., Witten, D., Hastie, T., Tibshirani, R. An Introduction to Statistical Learning with Applications in R. Springer, 2013. Freely available at http://wwwbcf. usc.edu/~gareth/ISL/ Watkins, J. C., (2023) An Introduction to the Science of Statistics: From Theory to Implementation. Preliminary Edition. https://www.math.arizona.edu/~jwatkins/statbook.pdf Azzalini, A. and Scarpa, B. Data analysis and data mining: An introduction. OUP USA, 2012 Moore, D.S., McCabe G.P., Craig, B.A. Introduction to the Practice of Statistics., New York, WH Freeman, 2009.
Weitere Informationen	
Ziele für nachhaltige Entwicklung (SDGs)	Gesundheit und Wohlergehen, Maßnahmen zum Klimaschutz, Weniger Ungleichheiten, Menschenwürdige Arbeit und Wirtschaftswachstum