Freie Universität Bozen
Libera Università di Bolzano
Università Liedia de Bulsan

Syllabus
Course description

Course title	Research Methods and experimental design
Course code	31002
Scientific sector	SECS-S/01
Degree	Master in Tourism Management
Semester and academic year	2nd Semester 2023/2024
Year	1st study year
Credits	6
Modular	No

Total lecturing hours	36
Total lab hours	-
Total exercise hours	-
Attendance	suggested, but not required
Prerequisites	not foreseen
Course page	https://www.unibz.it/en/faculties/economics-management/master-tourism-management/course-offering

Specific educational objectives	The course is designed for acquiring professional skills and knowledge in the area of empirical research methods and statistics. Educational objectives: The students will be enabled to critical assessment and independent treatment of empirical research issues, including planning, data collection and statistical data analysis.

Lecturer	Dr. Tun-I Hu, TunI.Hu@unibz.it, Campus Bruneck-Brunico, 1st Floor, Office 1.09 https://www.unibz.it/en/faculties/economics-management/academic-staff/person/48974-tun-i-hu
Scientific sector of the lecturer	SECS-S/01
Teaching language	English
Office hours	https://www.unibz.it/en/timetable/?department=26&degre

	e=13009%2C13134
List of topics covered	• Research approach and design • Qualitative and quantitative research methods • Questionnaire design and sampling • Data collection, descriptive statistics and data visualization • Correlation analysis • Linear regression analysis • Clustering analysis • Statistical programming with R software
Teaching format	Frontal lectures; Practical lectures with exercises.

Learning outcomes	Knowledge and understanding: Knowledge of the most relevant social research methods and understanding their field of application; knowledge of the most important statistical methods for data analysis; understanding their rationale, conditions of usage and their results. Applying knowledge and understanding: Designing a study, selection of appropriate method of data collection; identification of appropriate statistical method for data analysis. Making judgments: Critical reviewing of own scientific work and of original publications; interpretation of statistical analyses in the context of diverse research fields. Ability to judge the appropriateness of statistical methods. Communication skills: Ability to describe and explain research design; ability to present results of statistical analyses correctly and intelligibly. Learning skills: Ability to independently deepen their knowledge in the field of data collection, construction of measurement instruments and statistical analysis methods; familiarity with self learning tools for statistical software.

Assessment	**Individual data analysis and report (50%)** • Individual assessment • You should submit **ONE R script file (.R) and ONE PDF file with no more than 10 pages** which contains your anlaysis of the given data. • Submit before the deadline, which will be announced in class.

	<u>Written final exam</u> (50%) • Duration: 100 minutes. • Consist of questions on theoretical concepts and data analysis output reading and interpretation. The assessment mode is the same for both **attending and non-attending students.** *NOTE: Project work and classroom contributions are valid for 1 academic year and cannot be carried over beyond that time-frame.*
Assessment language	English
Evaluation criteria and criteria for awarding marks	Assessment of **<u>Individual data analysis and report</u>** is based on the following criteria: • Demonstrate your understanding of R language. • Apply appropriated methodology for data analysis. • Ability to read and interpret the analysis output correctly. • Ability to summarize in own words. Assessment of **<u>Written final exam</u>** is based on the following criteria: • Correctness and completeness of answers. • Ability to read and interpret the data analysis output correctly. • Clarity of explanatioons and comments.

Required readings	Lecture script
Supplementary readings	Watkins, J. C., (2023) An Introduction to the Science of Statistics: From Theory to Implementation. Preliminary Edition. <u>https://www.math.arizona.edu/~jwatkins/statbook.pdf</u>