Syllabus

Course Description

Course Title	Data Management, Analysis and Security
Course Code	30191
Course Title Additional	
Scientific-Disciplinary Sector	STAT-04/A
Language	German
Degree Course	Bachelor in Tourism, Sport and Event Management
Other Degree Courses (Loaned)	
Lecturers	Prof. Dr. Peter Alfons Schmid, PeterAlfons.Schmid@unibz.it https://www.unibz.it/en/faculties/economics-management/academic-staff/person/44766
Teaching Assistant	
Semester	Second semester
Course Year/s	3
CP	6
Teaching Hours	36 (ONLINE)
Lab Hours	-
Individual Study Hours	-
Planned Office Hours	18
Contents Summary	This course introduces key concepts and practical skills in data management, analysis, and protection, with a focus on applications in the tourism sector. Topics include data collection, storage, cleaning, and visualization; basic statistical and machine learning methods; and hands-on work with the R software for exploring and analyzing real-world tourism data. Students will also gain an understanding of legal frameworks for data protection and develop the ability to assess both the value and risks of data.
Course Topics	-
Keywords	-

Recommended Prerequisites	-
Propaedeutic Courses	
Teaching Format	-
Mandatory Attendance	-
Specific Educational Objectives and Learning Outcomes	ILO (Intended Learning Outcomes) ILO 1 - Knowledge and understanding ILO 1.1 The concept of uncertainty and the basic elements of probability theory. ILO 1.2 The software available for data analysis in the social sciences. ILO 1.3 Fundamentals of the concepts of uncertainty, ambiguity and robustness in the context of data analysis. ILO 1.4 Best practices and important Excel functions for data collection, processing and visualisation. ILO 1.5 The mechanisms for creating and using big data and the impact on the business environment. ILO 1.6 The monetary value of personal and business data. ILO 1.7 The concept of data security from a legislative and technical perspective. ILO 2 - Ability to apply knowledge and understanding ILO 2.1 Basic concepts that are useful for attending courses in economics, business administration and management ILO 2.2 Formally defining economic problems; finding (optimal) solutions based on existing theories and interpreting results. ILO 2.3 Use matrices to represent data and manage it for transformations and calculations. ILO 2.4 Statistical methods as useful research tools in the social sciences. ILO 2.5 At least one statistical application for developing simple data analysis. ILO 2.6 Use Excel for data collection, processing and visualisation. ILO 2.7 Use web services for online data analysis. ILO 2.8 Understand the basic principles of modern data analysis concepts, such as machine learning. ILO 2.9 Address data security issues in business environments. ILO 3 - Making judgements

	ILO 3.1 Identify the most important variables to be used in decision-making in complex situations. ILO 3.2 Report analytically and critically on information, empirical values and data in order to make appropriate business decisions. ILO 3.3 Select the most appropriate quantitative and qualitative analysis tools to support decision-making; ILO 3.4 Find necessary additional information in databases, legal documents and scientific sources; ILO 3.5 Find solutions by using logical conclusions and combining information and analytical tools ILO 4 - Communication skills ILO 4.1 Achievement of this objective is assessed by means of written examinations, group work, homework assignments, presentation of case studies and projects, and the final thesis. ILO 5 - Learning skills ILO 5.1 The ability to find up-to-date information in order to keep pace with changes in the service sector in general and in the field of tourism, sports and event management in particular; ILO 5.2 The ability to retrieve and utilise information from databases, research studies, legal texts, regulations and standards that are required in their professional life; ILO 5.3 the ability to analyse, critically evaluate and integrate data, information and experience; ILO 5.4 the ability to develop possible solutions to problems in economic and operational areas relating to those work contexts that represent potential career prospects for graduates.
Specific Educational Objectives and Learning Outcomes (additional info.)	
Assessment	-
Evaluation Criteria	-
Required Readings	-
Supplementary Readings	-
Further Information	

Sustainable Development Goals (SDGs)	Decent work and economic growth, Responsible consumption and production, Sustainable cities and communities, Industry, innovation and infrastructure