Syllabus

Kursbeschreibung

Titel der Lehrveranstaltung	Applied Data Science for Business Decision-Making
Code der Lehrveranstaltung	27520
Zusätzlicher Titel der Lehrveranstaltung	
Wissenschaftlich-disziplinärer Bereich	ECON-06/A
Sprache	Englisch
Studiengang	Master in Data Analytics for Economics and Management
Andere Studiengänge (gem. Lehrveranstaltung)	
Dozenten/Dozentinnen	Dr. Mehdi Hosseinkouchack, https://www.unibz.it/en/faculties/economics-management/academic-staff/person/55320
Wissensch. Mitarbeiter/Mitarbeiterin	
Semester	Zweites Semester
Studienjahr/e	2
KP	6
Vorlesungsstunden	36
Laboratoriumsstunden	-
Stunden für individuelles Studium	-
Vorgesehene Sprechzeiten	18
Inhaltsangabe	OFFERED ONLINE This course provides practical tools and methods for applying data science techniques to business decision-making. It focuses on transforming data into actionable insights using statistical learning, predictive modeling, and data-driven decision frameworks in areas such as marketing, finance, and operations.

Themen der Lehrveranstaltung	• Data-driven decision making • Data preparation and exploration • Causal inference and experimentation • Predictive modeling for decision-making • Optimization and prescriptive analytics • Business applications
Stichwörter	-
Empfohlene Voraussetzungen	
Propädeutische Lehrveranstaltungen	
Unterrichtsform	This course is offered online.
Anwesenheitspflicht	Attendance is recommended, but not mandatory.
Spezifische Bildungsziele und erwartete Lernergebnisse	Intended Learning Outcomes (ILO) ILO 1 Knowledge and understanding: ILO 1.1 Students will develop specialised knowledge within the economic and business domains, tailored to their areas of interest and essential for addressing decision-making and managerial challenges in both public and private organisations. This learning outcome emphasises an interdisciplinary approach to problem-solving and organisational analysis. ILO 1.2 Within the Business Analytics track, students will acquire knowledge of tools and methodologies essential for analysing and interpreting corporate and organisational data. This includes understanding business performance measurement, business models and their evolution, decision-support techniques, and performance measurement systems aligned with digitalisation and sustainability processes. Furthermore, students will develop competencies in managing marketing processes, with particular emphasis on digital and interactive marketing, and assessing the impact of digitalisation on marketing activities. ILO 2 Applying knowledge and understanding: ILO 2.1 Students will develop the ability to analyse business-related issues

	that underpin data-driven decision support by applying statistical models and computational modelling techniques. This outcome focuses on integrating quantitative methods to evaluate and optimise organisational decision-making processes. ILO 2.2 Students will develop the ability to utilise and apply models designed for market analysis and for the formulation of economic policies. This outcome emphasises the integration of theoretical and empirical approaches to support evidence-based policy development and strategic decision-making. ILO 3 Making judgements: ILO 3.1 The student acquires the ability to apply acquired knowledge to interpret data in order to make directional and operational decisions in a business context. ILO 3.2 The student acquires the ability to apply acquired knowledge to support processes related to production, management and risk promotion activities and investment choices through the organisation, analysis and interpretation of complex databases. ILO4 Communication skills: ILO 4.1 The student acquires the ability 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. ILO 5 Learning skills: ILO 5.1 The student acquires knowledge of scientific research tools. He/she will also be able to make autonomous use of information technology to carry out bibliographic research and investigations both for his/her own training and for further education. Furthermore, through the curricular teaching and the activities related to the preparation of the final thesis, she will be able to acquire the ability - to identify thematic connections and to establish relationships

	between methods of analysis and application contexts; - to frame a new problem in a systematic manner and to implement appropriate analysis solutions; - to formulate general statistical-econometric models from the phenomena studied.
Spezifisches Bildungsziel und erwartete Lernergebnisse (zusätzliche Informationen)	
Art der Prüfung	TBD
Bewertungskriterien	TBD
Pflichtliteratur	TBD
Weiterführende Literatur	TBD
Weitere Informationen	
Ziele für nachhaltige Entwicklung (SDGs)	Hochwertige Bildung