Syllabus

Course Description

Course Title	Introduction to Block Chain
Course Code	27519
Course Title Additional	
Scientific-Disciplinary Sector	ECON-06/A
Language	English
Degree Course	Master in Data Analytics for Economics and Management
Other Degree Courses (Loaned)	
Lecturers	Dr. Olga Stanislavovna Bogachek, Olga.Bogachek@unibz.it https://www.unibz.it/en/faculties/economics-management/academic-staff/person/41225
Teaching Assistant	
Semester	Second semester
Course Year/s	2
CP	6
Teaching Hours	36
Lab Hours	-
Individual Study Hours	-
Planned Office Hours	18
Contents Summary	This course introduces students to the fundamentals of blockchain technology, covering key concepts, terminology, and mechanisms, and explores its potential applications in real-world contexts. Students will acquire a foundational understanding that enables them to discover how blockchain innovations work and their implications.
Course Topics	What is Blockchain (BC) and how it works. Concepts of centralized and distributed systems, integrity, trust, ownership, anonymity. Introduction to cryptography and hashing protocols. Smart contracts. Potential applications of BC in supply chain, finance and

	accounting, limits and issues.
Keywords	Blockchain technology, Cryptography, Hashing protocols
Recommended Prerequisites	No prior experience or prerequisite academic background is necessary to do well in the course. Undergraduate introductory courses in accounting, finance and statistics will be beneficial.
Propaedeutic Courses	
Teaching Format	This course will use a combination of lectures, practical assignments, scientific articles, case discussions, assignments, professional expert presentations and online reading. Class participation and active discussion is both expected and encouraged to apply theoretical concepts to realistic business-related situations. Students are expected to have thoroughly read all the assigned material in advance of the class to ensure a meaningful class participation. Homework may be assigned.
Mandatory Attendance	Recommended, but not required.
Specific Educational Objectives and Learning Outcomes	Intended Learning Outcomes (ILO) ILO 1 Knowledge and understanding: ILO 1.1 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 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. ILO 4 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.
Specific Educational Objectives and Learning Outcomes (additional info.)	The goal of this course is to introduce the students to the general overview of the concepts and tools to understand the potential of blockchain technology in real world applications. It has two basic objectives: to ground students in the basic technical concepts, terminology, procedures and relevant theories; and to develop in them the skills and attitudes necessary to further develop blockchain acumen and critically assess its potential and applications.
Assessment	For attending students: final grade will be a mixture of participation in case study discussions/presentations and mid-term assignments, practical assessments and exam(s) (ILOs 1-3, 4.1, 5.1). For non-attending students: written final exam (100%) (ILOs 1- 3, 5.1). Detailed point breakdown for individual assignments etc will be

	provided in the first lecture. NOTE: final exams for attending and non-attending students may vary. The modality of the final exam (e.g. written/oral/take-home/open book) will be communicated in the due course.
Evaluation Criteria	Detailed grading rubric will be provided during the course prior to the assignments.
Required Readings	Drescher, D., Blockchain Basics: A Non-Technical Introduction in 25 Steps (available online; *please confirm with instructor before purchasing*)
Supplementary Readings	Course materials will consist of three areas: (i) a textbook; (ii) lecture slides, to be provided by your instructor; and (iii) readings from weblinks and scientific articles, will be provided by instructor during the course.
Further Information	
Sustainable Development Goals (SDGs)	Quality education, Decent work and economic growth, Partnerships fot the goals, Responsible consumption and production, Peace, justice and strong institutions, Industry, innovation and infrastructure