Fakultät für Ingenieurwesen
Facoltà di Ingegneria
Faculty of Engineering

COURSE DESCRIPTION – ACADEMIC YEAR 2024/2025

Course title	**Digital Finance and Financial Markets**
Course code	76408
Scientific sector	SECS-P/09
Degree	Bachelor in Informatics and Management of Digital Business (L-31)
Semester	1+2
Year	2
Credits	12
Modular	Yes

Total lecturing hours	84
Total lab hours	--
Attendance	Highly recommended, although not compulsory as per national regulation.
Prerequisites	Accounting for Decision Making (1st year) is strongly suggested.
Course page	https://ole.unibz.it/

Specific educational objectives	The course belongs to the type "attività formative affini o integrative". The course is designed to offer an introduction to basic concepts of financial decision-making, financial management of digital firms, and how to apply them to real life cases. In addition, the functions performed by financial markets and intermediaries within the financial system (e.g., banks) will be discussed as well as recent developments (e.g., token offerings). Students will understand how the interests of owners, debt holders and management of a firm may conflict, and how this influences optimal financing and decision-making. We will also study how firms choose their capital structure to make investments, and how financial markets and intermediaries evaluate and finance business activities.

Module 1	**Principles of Finance for Computer Science**
Module code	76408A
Module scientific sector	SECS-P/09
Lecturer	Florian Kiesel
Contact	Office E2.04, piazza Università 1, BZ; florian.kiesel@unibz.it, +39 0471 013041
Scientific sector of lecturer	SECS-P/09
Teaching language	English
Office hours	Please refer to the course webpage
Lecturing assistant (if any)	--
Contact LA	--
Office hours LA	--
Credits	6
Lecturing hours	42
Lab hours	--
List of topics	List of covered topics: • Arbitrage principles in finance • Risk and Return • Real Investment Analysis

	• Raising capital
Teaching format	Classroom activity will alternate background lectures, applied exercises, examples based on practical short case studies, discussions and comments of current developments and events in financial markets and institutions related to topics covered in class.

Module 2	**Financial Markets**
Module code	76408A
Module scientific sector	SECS-P/11
Lecturer	Peter Alfons Schmid
Contact	Office B1.6.20, Faculty of Engineering, NOI Techpark, Via Bruno Buozzi 1, PeterAlfons.Schmid@unibz.it
Scientific sector of lecturer	--
Teaching language	German
Office hours	By previous appointment via e-mail.
Lecturing assistant (if any)	-
Contact LA	-
Office hours LA	-
Credits	6
Lecturing hours	42
Lab hours	--
List of topics	List of covered topics: • Financial system and Financial intermediation • Banks and Non-Banks • Capital Markets and Investment Banks • Asset Management
Teaching format	Classroom activity will alternate background lectures, applied exercises, examples based on practical short case studies, discussions and comments of current development and events in financial market and institutions related to topics covered in class.

Learning outcomes	Knowledge and understanding: • D1.17 - Know further methods of Digital Finance and Digital Advertising and their application. • D.1.18 - Understand the interdisciplinary approach to IT projects that takes into account technical foundations, business needs, social and dynamic aspects and the regulatory framework. Applying knowledge and understanding: • D2.3 - Ability to analyse business problems and to develop proposals for solutions with the help of IT tools. • D2.4 - Ability to formalise and to analyse procedures and operational processes, to recognise and use optimisation potentials. • D2.6 - Ability to design, describe and present IT solutions to policy makers. • D2.9 - Ability to support the management of IT departments and software companies by providing information as needed.

	• D2.11 - Ability to analyse large amounts of data on economic facts and processes. • D2.13 - Ability to apply additional knowledge in the subjects of Digital Finance and Digital Marketing. • D2.18 - Know how to communicate with the client in written and oral form on a professional level in English, Italian and German. Making judgments • D3.1 - Ability to collect and interpret data useful for forming independent judgments on IT and economic aspects of information systems. • D3.3 - Ability to compare and evaluate different IT solutions based on their technical characteristics and key business figures. • D3.4 - Ability to assess fundamental economic and business facts on the basis of numerical data. Communication skills • D4.1 - Be able to use the three languages English, Italian and German and, in particular in English, be able to use appropriate technical terminology and communication style. • D4.2 - Ability to use modern means of communication also for remote interactions. • D4.3 - Ability to negotiate with people with different professional experiences the definition and requirements of corporate information systems. Learning skills • D5.2 - Learning ability to carry out strategic and IT project activities in corporate communities, also distributed. • D5.3 - Ability to follow rapid technological developments and to learn about innovative aspects of the latest generation of information technology and systems.

Assessment	The assessment is based on three parts.
	• One case study on investment decisions during the M1 "Principles of Finance for Computer Science".
	• A written exam divided in two parts, one for each module:
	  ○ the first part of the written exam covers the topics related to principles of finance (in English).
	  ○ the second part covers the topic related to financial markets (German language).
	
	The first part of the written exam can also be passed in the form of a midterm held during the last lecture of the M1.
	
	Non-attending students will have only a final exam which covers all topics of the module.

Assessment language	English (M1) and German (M2)
Assessment Typology	Monocratic

Evaluation criteria and criteria for awarding marks	• The case study counts 20% of the total grade. The case study is an individual project. For the case study, students have to evaluate an investment case and provide a solution to the problem. The case study is evaluated based on the assumptions made by the student, the level of detail and the final presentation of the results. • The two parts of the written exams count 40% each. The exams contain questions regarding financial theory but also practical exercises. Relevant for the first part of the written exam: clarity of answers, ability of problem solving, transferring knowledge, showing understanding of financial problems, ability to summarize knowledge, developing financial decision choices. Relevant for the second part of the written exam: understanding of financial markets, ability to summarize answers in own words, establish relationships between corporates and financial markets. Clarity in exam execution and quality of written English and German are essential to earn the passing grade. All three parts need to be passed independently.

Required readings	Principles of Finance for Computer Science: • J. Berk and P. DeMarzo, Corporate Finance, 5th Edition (2020), Pearson. Financial Markets: • F.S. Miskin, S.G. Eakins, Financial Markets and Institutions, 9th edition, 2018, Pearson (English) • A. Saunders, M. Cornett und O. Erhemjamts, Financial Markets and Institutions, 9th edition, 2024, McGraw-Hill. • D. Dietrich, U. Vollmer, Finanzverträge und Finanzintermediation, 2005, Gabler Subject Librarian: David Gebhardi, David.Gebhardi@unibz.it
Supplementary readings	A list of supplementary readings (slides, case studies, journal articles, etc.) will be provided during the courses and posted on the OLE platform.
Software used	Excel package