Fakultät für Informatik
Facoltà di Scienze e Tecnologie informatiche
Faculty of Computer Science

COURSE DESCRIPTION – ACADEMIC YEAR 2020/2021

Course title	**IT Management and ERP Systems**
Course code	76414
Scientific sector	INF/01
Degree	Bachelor in Informatics and Management of Digital Business (L-31)
Semester	1+2
Year	2
Credits	12
Modular	Yes

Total lecturing hours	80
Total lab hours	40
Attendance	Mandatory
Prerequisites	
Course page	https://ole.unibz.it/

Specific educational objectives	The course belongs to the type "caratterizzane - informatica".

This course is designed for acquiring contemporary professional skills and knowledge.

After successful completion the student should have a well-founded, basic understanding of what is involved to successfully model and analyze complex aspects of an organization that provide a context for the structuring and interpretation of Enterprise Data. The course will not teach mastery of specific tools, but educate on best practices and processes.

The first module will be taught from a perspective that is strongly based on modeling. For that, the students will learn to produce, read and reason with architecture models ranging from Strategy Models (Business Models and Goal Models), passing by Service and Business Process Models, as well as models of IT services and infrastructures that support the business layer.

As part of the second module students will learn about the functioning and architecture of Enterprise Resource Planning (ERP) Systems. Furthermore students will be introduced to the development and customization process for implementing different Enterprise Systems. Finally students will also participate in a management simulation game to make first-hand experience of IT Management concepts. |

| **Module 1**	**IT Management and Enterprise Modeling**
Module code	76414A
Module scientific sector	INF/01
Lecturer	Giancarlo Guizzardi
Contact	Piazza Domenicani 3, Faculty of Computer Science, Office 3.06, gguizzardi@unibz.it, 3662896895
Scientific sector of lecturer	INF/01
Teaching language	English
Office hours	To be arranged beforehand by email.
Lecturing assistant (if any)	Panagiotis Symeonidis

Contact LA	Piazza Domenicani 3, Faculty of Computer Science Office 2.11, psymeonidis@unibz.it, 0039 0471016020
Office hours LA	To be arranged beforehand by email
Credits	6
Lecturing hours	40
Lab hours	20
List of topics	• Basic concepts of IT management • Managing technical environments • Security issues in IT management • IT related standards, laws, and regulations • Risk management and disaster recovery • Service-based management of IT
Teaching format	Frontal lectures, modeling exercises, projects in groups.

Module 2	**ERP Systems and IT Service Management**
Module code	76414B
Module scientific sector	INF/01
Lecturer	Markus Zanker and Matthias Heiler
Contact	Piazza Domenicani 3, Faculty of Computer Science, Office 2.20, markus.zanker@unibz.it, +39 0471 016977
Scientific sector of lecturer	INF/01
Teaching language	German
Office hours	To be announced in the first lecture, arrange beforehand by email.
Lecturing assistant (if any)	Matthias Heiler
Contact LA	TBD
Office hours LA	To be announced in the first lecture, arrange beforehand by email.
Credits	6
Lecturing hours	40
Lab hours	20
List of topics	• IT service management processes • Management simulation game on the information and technology function in organizations • Concepts, technologies and systems in the ERP market • ERP project lifecycle • ERP systems from the developer perspective (customizing and developing) • Best practice case studies, frameworks and tools
Teaching format	Frontal lectures with hands-on exercises, management simulation game

Learning outcomes	Knowledge and understanding: • D.9 - Know the main IT Management and IT Service Management methods. • D.10 - Know the main methodologies for business modeling as well as for the introduction and adaptation of business software packages. Applying knowledge and understanding: • D2.4 - Ability to formalise and to analyse procedures and operational processes, to recognise and use optimisation potentials.

- D2.5 - Selective skills for the introduction, adaptation and maintenance of standard operating software and other IT solutions.
- 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.
- D.10 - IT infrastructure and project management capabilities.

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.

Communication skills

- D4.2 - Ability to use modern means of communication also for remote interactions.
- D4.5 - Ability to collaborate in interdisciplinary teams to achieve IT objectives.

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 of the course consists of two parts: • Project assignment M1: for the project assignment M1, a written project report including the produced models must be handed in on the pre-announced date and time. • Project assignment M2: for the project assignment M2, a written project report must be handed in on the pre-announced date and time. • An oral exam with verification and comprehension questions.
Assessment language	English and German
Assessment Typology	Collegial
Evaluation criteria and criteria for awarding marks	70% collective project assignments for M1 and M2, 30% individual oral exam; ALL parts must be positive! Oral exam: creativity, skills in critical thinking; ability to summarize in own words and concisely present (intermediate and final) results; clarity of answers, mastery of language, ability to clearly explain, summarize, evaluate, and establish relationships between topics; demonstrate a deep understanding of the subjects covered during the course and be able to describe them precisely and clearly. Relevant for collective project assignment: ability to work in a team, creativity, introduce oneself into new topics and research literature on your own to create a deep understanding; demonstrate a deep

	understanding of the subjects covered during the course and be able to describe them precisely and clearly.
	The overall, final mark is computed as the weighted average of the marks obtained in the two modules.

Required readings	M1: There are a number of supplementary readings for the course. One which is used throughout the course very consistently is the following: • Marc Lankhorst et al., Enterprise Architecture at Work: Modeling, Communication and Analysis, The Enterprise Engineering Series, Springer, 4th Edition, 2017, ISBN: 3- 662-53932-2 M2: • Readings on IT Service Management and ERP Systems will be made available via OLE. Subject Librarian: David Gebhardi, David.Gebhardi@unibz.it
Supplementary readings	M1: • Archimate Specifications, The Open Group, available online a ⬜ • Maria-Eugenia Iacob, Henk Jonkers, Dick Quartel, Henry Franken, Harmen van den Berg, Delivering Business ⬜outcome with TOGAF and Archimate • Articles on Specific Topics of the Course M2: • Additional articles on IT Service Management and ERP Systems will be made available via OLE.
Software used	M1: Archimate Modeling Tool. Examples include ARCHI or the Draw.IO Archimate Template. The tool is available online and can be used free of charge by the students. M2: ERP software for demonstration purposes and hands-on experience.