COURSE DESCRIPTION – ACADEMIC YEAR 2017/2018

Course title	**IT and Service Management**
Course code	72118
Scientific sector	INF/01
Degree	Master in Computer Science (LM-18)
Semester	1
Year	1
Credits	8
Modular	No

Total lecturing hours	48
Total lab hours	24
Total exercise hours	--
Attendance	Mandatory
Prerequisites	Object-oriented Modeling or Conceptual Modeling
Course page	https://ole.unibz.it/

Specific educational objectives	The course belongs to the type "caratterizzanti – discipline informatiche" in the curriculum "Software Engineering and IT Management". 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 run IT and service management. The course will not teach mastery of specific tools, but educate on best practices and processes. The course 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 Business Models, passing by Service and Business Process Models, as well as models of IT services and infrastructures that support the business layer.

Lecturer	Giancarlo Guizzardi
Contact	Piazza Domenicani 3, Room 3.04, Giancalo.Guizzardi@unibz.it
Scientific sector of lecturer	INF/01
Teaching language	English
Office hours	Arrange beforehand by email.
Lecturing Assistant (if any)	--
Contact LA	--
Office hours LA	--
List of topics	• Role and purpose of IT managers • Basic concepts of IT management • Managing IT teams and projects • Managing technical environment • 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.

Learning outcomes	Knowledge and understanding • Know the main techniques and tools for modelling business processes in line with business strategy and in alignment with the underlying technology infrastructure. • Understand the dynamics of the economic-technological market that affect the development and adoption of software products and services. • Know the main methods of team, resource management and risks analysis in software development and maintenance. Applying knowledge and understanding • Be able to identify new needs and business opportunities in the field of software technology and services. • Be able to use and adapt process modelling software tools for the development of information systems. • Be able to integrate, adapt, and improve organizational and business strategies with Information Technology Making judgments • Be able to plan and re-plan a technical project activity aimed at building an information system and to bring it to completion by meeting the defined deadlines and objectives. • Be able to identify reasonable work goals and estimate the resources required to achieve the objectives. The training in the development of these skills and the verification of their achievement takes place during lectures and through the development of the technical project assignment. Communication Skills • Be able to present in a fixed time the content of a technical report in front of an audience. • Be able to structure and prepare technical documentation describing project activities. • Be able to coordinate the work of a project team and to interact positively with members of the group • Be able to interact and collaborate with peers and experts in the realization of a project. These skills are demonstrated in the presentations throughout the lab sessions, which work as a preparation for the submission of the project assignment but also during the oral exam. Learning skills • Be able to autonomously extend the knowledge acquired during the study course by reading and understanding scientific and technical documentation in English. • Be able, in the context of a problem-solving activity they must be able to extend even incomplete knowledge taking into account the objective of the project. These skills are assessed in the project assignment required for passing the course as well as the oral exam.

Assessment	• For the project assignment, a written project report including the produced models must be handed in on the pre-announced date and time. • Oral exam with verification and comprehension questions.
Assessment language	English
Evaluation criteria and criteria for awarding marks	70% collective project assignment, 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.

Required readings	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, 2012 (39UBZ ALMA DS).
Supplementary readings	• Rob Addy, Effective IT Service Management: to ITIL and Beyond!, Springer, 2007. • Marc Lankhorst et al., Enterprise Architecture at Work: Modeling, Communication and Analysis, The Enterprise Engineering Series, Springer, 2012. • Alexander Grosskopf, Gero Decker and Mathias Weske, The Process: Business Process Modeling using BPMN, Meghan-Kiffer Press, 2009. • Foundations of IT Service Management based on ITIL V3, ITSM Library Van Haren Publishing, 2008. • Archimate Specifications, The Open Group, available online at: http://www.opengroup.org/ • Maria-Eugenia Iacob, Henk Jonkers, Dick Quartel, Henry Franken, Harmen van den Berg, Delivering Business outcome with TOGAF and Archimate, online: www.bizzdesign.com • Articles on Specific Topics of the Course
Software used	• Archimate Modeling Tool. Examples include ARCHI (http://archimatetool.com) or the Draw.IO Archimate Templace (www.draw.io).

	• Advanced Conceptual Modeling Tool. An example is the Menthor Tool for Conceptual Modeling (http://www.menthor.net) • BPMN Modelling Tool. Examples include Draw.IO, Signavio (http://www.signavio.com/) or BPMN.IO • All these tools are available online and can be used free of charge by the students.