COURSE DESCRIPTION – ACADEMIC YEAR 2019/2020

Course title	**Lean Start-Up and Entrepreneurship**
Course code	76053
Scientific sector	INF/01
Degree	Master in Software Engineering for Information Systems (LM-18)
Semester	1
Year	1
Credits	6
Modular	No

Total lecturing hours	20
Total exercise hours	40
Attendance	compulsory
Prerequisites	open-mind towards innovation and new IT technology, and willingness to collaborate with students from different disciplines
Course page	https://ole.unibz.it/, https://leanstartup.bz

Specific educational objectives	The course belongs to the type caratterizzanti – discipline informatiche. Lean Startup adopts a learning-by-doing style, and is designed for acquiring both theoretical and practical skills and knowledge on processes of high-tech and software-intensive startups. The main educational objectives are: • Conducting customer discovery and validation. • Evaluating business idea and constructing business model. • Experimenting iterative product releasing and progress measuring. • Applying lean measures to validate what the effect is. • Learning how to operate and make decisions in chaos with insufficient data.

Lecturer	Xiaofeng Wang
Contact LA	Piazza Domenicani 3, Room 3.15, xiaofeng.wang@unibz.it, tel. 0471 016181
Scientific sector of lecturer	INF/01
Teaching language	English
Office hours	During the lecture time span, Fridays from 15:00 to 17:00, arrange beforehand by email
Lecturing Assistant (if any)	--
Contact LA	--
Office hours LA	--
List of topics	• Nature and characteristics of innovative start-ups • Problem identification and validation with design thinking tools • Customer development process • Build-measure-learn loops • Continuous retrospectives for start-up learning • Supporting toolkits for start-up processes

Teaching format	team projects supported by frontal lectures

Learning outcomes	**Knowledge and understanding:** D1.3 To know in depth the scientific method of investigation applied to complex systems and innovative technologies that support information technology and its applications. **Applying knowledge and understanding:** D2.2 To be able to design and perform experimental analyses of information systems in order to acquire measures related to their behaviour and to evaluate experimental hypotheses in different fields of application, such as business, industrial or research; D2.4 To be able to define an innovative technical solution to an application problem that meets technical, functional and organisational constraints and requirements. **Making judgments:** D3.3 To be able to define work objectives compatible with the time and resources available; D3.4 To be able to reconcile the objectives of the project that are in conflict, to trade-off cost, resources, time, knowledge or risk; D3.5 To be able to work with large autonomy, also assuming responsibility for projects and structures. **Communication skills:** D4.2 To be able to present the contents of a scientific/technical report to an audience, including non-specialists, at a fixed time; D4.4 To be able to coordinate project teams and to identify activities to achieve project objectives; D4.7 To be able to carry out research and projects in collaborative manner. **Learning skills:** D5.2 To be able to keep up to date independently with developments in the most important areas of information technology; D5.3 In the context of a problem solving activity, to be able to extend knowledge, even if incomplete, taking into account the final objective of the project.

Assessment	Project work and oral exam: ● Project work to apply the Lean Startup methodology in a startup project (70% of the mark, team); ● Oral exam in the format of group pitch presentation, to test the understanding of theories and knowledge application skills, and verification of project results (30% of the mark, team). Note: Positive project result is necessary to attend the oral exam. Both parts of results must be positive to pass the exam. In case of a positive mark, the project will count for all 3 regular exam sessions.
Assessment language	English
Assessment typology	Monocratic

Evaluation criteria and criteria for awarding marks	Evaluation criteria for project work: ● effective application of the Lean Startup methodology ● good teamwork ● innovativeness and quality of developed idea Evaluation criteria for oral exam: ● the soundness and quality of pitch presentation ● clarity of answers

Required readings	● E. Ries, The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses. Crown Business, 2011, p. 336. ● S. G. Blank, The Four Steps to the Epiphany: Successful Strategies for Products that Win. Cafepress.com. Other reading materials be published in the course websites. Subject Librarian: David Gebhardi, David.Gebhardi@unibz.it
Supplementary readings	Will be published in the course website.
Software used	Will be decided by the project teams.