Module title	Innovation and Project Management
Code	B3
Degree Programme	Master of Science in Life Sciences
Workload	3 ECTS (90 student working hours) - Lessons contact (total 42 of which 28 central teaching): 32 h - Self-study: 58 h
Module Coordinator	**Name**: Dr. Robert Vorburger **Phone**: +41 58 934 54 72 **Email**: robert.vorburger@zhaw.ch **Address**: ZHAW Life Sciences und Facility Management, Einsiedlerstrasse 31a, 8820 Wädenswil
Lecturers	Dr. Robert Vorburger, ZHAW
Entry requirements	Module B1 "Business Administration for Life Sciences" recommended Module B2 "Business Management and Leadership for Life Sciences" recommended
Learning outcomes and competences	After completing the module, students will be able to: • differentiate between innovation and creativity • understand the role of innovation management within a company • apply internationally approved project management methodologies • apply internationally approved requirements engineering techniques • differentiate between quality management and risk management • include patent law and intellectual property rules in new business opportunities.
Module contents	• *Creativity Techniques*: Different methods to encourage creativity, including techniques for idea generation and divergent thinking • *Innovation Management*: How to shape a creative idea into a product or business model. The role of innovation management within a company • *Requirements Engineering*: Identify and specify the needs as soon and as exact as possible. General techniques of requirement engineering such as phrasing, categorising, and tracing of requirements • *Project Management*: Internationally approved sequential as well as agile project management methodologies, e.g. waterfall model and SCRUM, respectively. • *Quality Management*: International standards (e.g. ISO), validation and verification, common ground with risk management
Teaching / learning methods	Tentative schedule: Table below

Week	<1	1	2	3	4	5	6	7	>7
Central		4L	8L		8L		8L		
Local		2L		4L		4L	2L		
Self-study	20h	18h							20h

A project builds the core of the module. The mission is to develop and manage a product or a service.

	During the central teaching lessons, techniques, methods, and concepts are presented and discussed. Additional material for self-study will be provided to build a deeper understanding of the topics.
	In line with the topics covered in the central lessons, a project is implemented in the decentral lessons. The students work together in small groups. In a first phase, the students will apply innovation techniques to come up with a product/service idea and will compile a business model canvas around the product/service. In the second phase, PM techniques will be applied to plan the development and production of the product.
	The project consists of milestones. Simulating a peer-reviewed process, each group reviews and discusses the progress of two other groups. The review further strengthens the understanding by offering a different point of view.
	The role of the teacher shifts in the decentral lessons from a lecturer to a coach.
Assessment of learning outcome	1. Final online exam, open book (on methodologies) (80%) 2. Three group assignments during the module; to be handed in within 2 weeks each (20%)
Format	7-weeks
Timing of the module	For ZHAW and FHNW: Spring semester, CW 15-21 For BFH and HES-SO: Autumn semester, CW 45-51
Venue	For ZHAW and FHNW: Olten For BFH and HES-SO: Fribourg
Bibliography	Project Management Handbook Kuster, J., Huber, E., Lippmann, R., Schmid, A., Schneider, E., Witschi, U., Wüst, R Springer-Verlag, 2015 The Art of Innovation: Lessons in Creativity from IDEO, America's Leading Design Firm Kelly Tom Crown Publishing Group, 2007
Language	English
Links to other modules	Quality management is related to a company's *organisation* and, in particular, to *controlling and reporting* which is part of module B2.
Comments	Material treated during local teaching is relevant for the exam.
Last Update	05.02.2021