

Module title	Innovation and Project Management
Code	B3
Degree Programme	Master of Science in Life Sciences
Workload	3 ECTS (90 student working hours) <ul style="list-style-type: none"> - Asynchronous and synchronous distance learning, decentralized teaching: 32 h - Self-study: 58 h (20 h self-study before module starts)
Module Coordinator	<p>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</p>
Lecturers	Dr. Robert Vorburger, ZHAW
Entry requirements	<p>Module B1 "Business Administration for Life Sciences" recommended Module B2 "Management and Leadership for Life Sciences" recommended</p>
Learning outcomes and competences	<p>After completing the module, students will be able to:</p> <ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • <i>Creativity Techniques:</i> Different methods to encourage creativity, including techniques for idea generation and divergent thinking • <i>Innovation Management:</i> How to shape a creative idea into a product or business model. The role of innovation management within a company • <i>Requirements Engineering:</i> 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 • <i>Project Management:</i> Internationally approved sequential as well as agile project management methodologies, e.g. waterfall model and SCRUM, respectively. • <i>Quality Management:</i> International standards (e.g. ISO), validation and verification, common ground with risk management
Teaching / learning methods	<p>A project builds the core of the module. The mission is to develop and manage a product or a service.</p> <p>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.</p> <p>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.</p>

	The role of the teacher shifts in the decentral lessons from a lecturer to a coach.
Assessment of learning outcome	<ol style="list-style-type: none"> 1. Final written 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	online / decentralized teaching at respective school
Bibliography	<p>Project Management Handbook Kuster, J., Huber, E., Lippmann, R., Schmid, A., Schneider, E., Witschi, U., Wüst, R Springer-Verlag, 2015</p> <p>The Art of Innovation: Lessons in Creativity from IDEO, America's Leading Design Firm Kelly Tom Crown Publishing Group, 2007</p>
Language	English
Links to other modules	Quality management is related to a company's <i>organisation</i> and to <i>controlling and reporting</i> which is part of module B2.
Comments	Material treated during local teaching is relevant for the exam.
Last Update	06.04.2021