

Master in Life Sciences

A cooperation between
BFH, FHNW, HES-SO, ZHAW

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 (10 h self-study before module starts)
Module Coordinator	Name: Dr. Robert Vorburger Phone: +41 58 934 54 72 Email: robert.vorburger@zhaw.ch Address: ZHAW Life Sciences und Facility Management, Schloss 1, 8820 Wädenswil
Lecturers	Dr. Robert Vorburger, ZHAW
Entry requirements	-
Learning outcomes and competences	After completing the module, students will be able to: <ul style="list-style-type: none"> • differentiate between creativity, invention, and innovation • understand the role of innovation management within a company • apply internationally approved project management methodologies • apply internationally approved requirements engineering techniques • understand the role of quality 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, 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 centralized 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 centralized lessons, a project is implemented in the decentralized 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, project management techniques will be applied to plan the development and production of the product.</p> <p>The role of the teacher shifts in the decentralized local lessons from a lecturer to a coach.</p>



Assessment of learning outcome	<ol style="list-style-type: none"> 1. Final written exam, closed book (on methodologies) (80%) 2. Three group assignments during the module in the decentralized teaching; to be handed in within 2 weeks each (20%)
Format	7-weeks
Timing of the module	For ZHAW and FHNW: Spring semester, CW 15-22 For BFH and HES-SO: Autumn semester, CW 45-51
Venue	centralized teaching online / decentralized teaching at respective school
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	
Comments	Material treated during decentralized teaching is relevant for the exam.
Last Update	09.09.2024