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| 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 centralized distance learning: 21 h - Decentralized local teaching: 11 h - Assignments: 32 h - Self-study: 26 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, Schloss 1, 8820 Wädenswil |
| Lecturers | Dr. Robert Vorburger, ZHAW |
| Entry requirements | Module B1 "Business Administration for Life Sciences" recommended Module B2 "Management and Leadership for Life Sciences" recommended |
| Learning outcomes and competences | After completing the module, students will be able to: <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, 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</p> |

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| | <p>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, open 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 | <p>For ZHAW and FHNW: Spring semester, CW 15-21</p> <p>For BFH and HES-SO: Autumn semester, CW 45-51</p> |
| 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 | |
| Comments | Material treated during decentralized local teaching is relevant for the exam. |
| Last Update | 12.09.2022 |