SCHOOL OF ENGINEERING Fakultät für Technik Hochschule Pforzheim



Syllabus **BAE2542 Innovation Management**

Prof. Dr. Bernhard Kölmel Winter Semester 2024/25

Level	Bachelor	
Credits	3	
Student Contact Hours	2	
Workload	90 hours	
Prerequisites	none	
Time	s. LSF	
Room	s. LSF	
Start Date	s. LSF	
Lecturer(s)	Name	Prof. Dr. Bernhard Kölmel
	Office	T2.3.14
	Virtual Office	Virtual Office Prof. Kölmel
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Summary

Students learn the basic tools of process management that are needed to plan, monitor and control a business and to ensure the effectiveness and efficiency of a company (e.g. process-oriented measurement, process-based reporting, process-based organization). Short case studies give them an insight into the application of process-oriented instruments.

The management of innovation is part of the implementation of the corporate strategy and can relate, among other things, to products, services, production processes, organizational structures, and management processes. While product innovations generally aim to better satisfy the needs of customers, process innovations are mostly aimed at improving the effectiveness and efficiency of processes. Successful implementation of an idea to a product or business model requires a structured innovation process. This process must be initiated, controlled and monitored in a company.

Outline of the Course

A holistic innovation process is geared to the innovation goals and thus creates a clear framework that structures and systematically implements the development of new products, services and business models. Before this can happen, however, within the company, it must be clear what is meant by the process itself.

The innovation process defines the management of an idea from the strategic search to the successful market launch and its transfer to the operative management.

The process is the heart of innovation management, whereby it makes sense to understand innovation goals as superordinate components of an innovation process and to align the process with the goals. The decision for certain innovation goals in turn marks the starting point of the innovation process and defines the process steps derived from it (idea generation, concept, development, etc.).

The innovation process creates a clear framework that structures and systematically implements the development of new products, services or business models.

The presentation of an innovation process usually begins with the generation of ideas and ends with the market launch. In practice, however, it has proven useful to understand innovation goals as overarching components of an innovation process and to align the process with the goals.

Course Intended Learning Outcomes and their Contribution to Program Intended Learning Outcomes / Program Goals

Program Intended Learning Outcomes		Course Intended Learning Outcomes	
	After completion of the program the students will be able	After completion of the course the students will be able	
1	Expert Knowledge	<u> </u>	
2	Digital Skills		
3	Critical Thinking and Analytical Competence		
3.1	to implement adequate methods in a competent manner and to apply them to complex problems.	to understand how organisations' ownership and structure affect innovation and growth: • Explain how the type of ownership of organisations may affect organisational innovation and growth • Analyse how the structure of different organisations may affect innovation and growth	
3.2	to critically reflect and interpret findings and to develop comprehensive solutions for complex problems.	to understand how innovation contributes to different types of organisational growth: • Examine different types of organisational growth in different organisations • Explain how innovation can lead to different types of organisational growth • Evaluate how innovation can provide competitive advantage to achieve different types of organisational growth	
4	Ethical Awareness		
5	Communication and Collaboration Skills		
6	Internationalization		
6.1	to understand and explain business challenges in an international context.	to understand how organisations' ownership and structure affect innovation and growth: • Explain how the type of ownership of organisations may affect organisational innovation and growth • Analyse how the structure of different organisations may affect innovation and growth	

Teaching and Learning Approach

The teaching and learning approach is based on 3 didactical methods:

The theoretical key knowledge and the basic concepts are thought at the lecture. The students gain the methodology and the guidance to know and to implement the introduced concepts and tools. Questions and comments of the students are welcome during the lecture.

After the lecture the students should reflect and sum up the content of the lecture based on course materials provided.

The theoretical knowledge is enlarged and converted into a practical role by workshops and case studies. An active participation in class is an important part of the teaching and learning approach. The students can always communicate with the instructor and get support and advice by talking or mailing.

Literature and Course Materials

- Gaubinger K. et al (2015): Innovation and Product Management A Holistic and Practical Approach to Uncertainty Reduction. Springer-Verlag. Berlin
- Becker, J. / Kugeler, M. / Rosemann, M. (2008): Prozessmanagement Ein Leitfaden zur prozessorientierten Organisationsgestaltung. 6th edition, Berlin: Springer.
- Gaitanides, M. (2006): Prozessorganisation. Entwicklung, Ansätze und Programme des Managements von Geschäftsprozessen. 2nd edition, München: Vahlen.
- Horváth & Partners (2005): Prozessmanagement umsetzen. Stuttgart: Schäffer-Poeschel.
- Mayer, R. (1998): Prozeßkostenrechnung State of the Art; Prozeßkostenmanagement.
 2nd edition, Stuttgart: n.p..
- Lunau, S. / Staudter, C. et al. (2013): Design for Six Sigma+Lean Toolset. Mindset for Successful Innovations. Berlin et al.: Springer.

Assessment

Exam

There is a written exam at the end of the semester (module exam, 60 min) and/or a project presentation jointly defined.

Grading, based on exam results:

'Very good' (A grade) signifies that the performance is above and beyond expectations.

'Good' (B grade) means that the performance is good and above average.

'Satisfactory' (C grade) means that it is an average performance containing insufficiencies but principally appropriate to the expectations.

'Adequate' (D grade) describes a below-average performance with obvious deficiencies.

'Inadequate' (E grade) is an unacceptable performance that is not sufficient to any expectations.

Schedule

Date	Theme			
	1. Process Framework Dimensions			
	1.1 Process Leadership			
	1.2 Process Governance			
	1.3 Process Performance, Reporting and Measurement			
	1.4 Strategic Alignment			
	1.5 People Capability			
	1.6 Project Execution			
	1.7 Technology			
	1.8 Process Organization			
	2. Fundamentals of Innovation and Product Management			
	2.1 Corporate Success Through Market Driven Innovation			
	2.2 Integrated Innovation/Product Mgt: A Process Oriented Framework			
	2.3 The Front End of Innovation			
	2.4 Innovation Strategy			
	3. Process of Innovation and Product Management			
	3.1 Idea Management and Open Innovation			
	3.2 Creativity Techniques			
	3.3 Product Concept			
	3.4 The New Product Development			
	3.5 Life Cycle Management			
	4. Additional Topics			
	4.1 Organization and Uncertainty			
	4.2 Globalization and Innovation			
	4.3 Design			

Tentative Schedule (changes tba)

Academic Integrity and Student Responsibility

The lecturer appreciates a substantial exchange between the students, because the fellow students may have valuable contributions to the comprehension of occurring problems or questions.

Following the arguments, collaboration and also an autonomous exercise solving or the discussions on upcoming questions within the lectures are fundamental for a clearer understanding of the subject matter.

Large class sizes and foreign languages imply a risk of a high noise level, which has a strong negative influence on the work climate, knowledge acquisition and collaboration. Predominantly, a high noise level is caused by a few group members. These 'troublemakers' hinder the other ones from being able to concentrate and therefore won't be tolerated and will be ejected from the class.

Code of Conduct for Students

Link to the Code of Conduct for online Teaching

Teaching Philosophy

My aim is to ensure that you have a successful learning progress and an understanding of the practical importance of the learning content. When you don't understand a learning step, you should pose a question during the lesson. I want to support every student who is committed to take the required knowledge and to pass the exams successfully.

Additional Information

Further details to be announced via e-learning (sign in and check regularly!)

Language: English