Syllabus
GMT6091 Innovation Management II
Dr. rer. nat. Frank J. Maile
Winter Term 2023/24

Level	Master	
Credits	5	
Student Contact Hours	3	
Workload	150 hours / blocked	
Prerequisites	Determinants of Innovation Performance	
Time	See LSF and MBA Schedule	
Room	See LSF and MBA Schedule	
Start Date	October 27, 2023	
Lecturer	**Name**	Dr. rer. nat. Frank J. Maile
	Office	-
	Virtual Office	-
	Office Hours	-
	Phone	+49 160 90607044
	Email	f.maile@lb.hs-pforzheim.de

Outline of the Course

Between Oct. 27th and Dec. 16th 2023, the MBA students are welcome to attend the lectures in the above-mentioned subject.

By the end of the course, the participants shall be capable to:

- understand the interdisciplinary approach of product development as a blend of marketing, design, and manufacturing
- the basics of "Design Thinking" vs. other creative problem solving methods
- accelerate the product development time
- improve the design of their services & products to international standards and reduce the risks for the market launch.

Contents:

- Role of Product Development in Innovation Management
- Role of Project Management in Product Development and Design
- Methodology of Life Cycle Assessment for Products incl. Product Carbon Footprint (PCF)
- Product Development Processes and Organisations
- Customer Needs Identification
- Product Specifications
- Patents and Intellectual Property
- Methods for Creative Problem Solving
- Product Development Simulation

Teaching and Learning Approach

In the lectures, there will be a balance between theory and practice through the emphasis on methods which represent a step-by-step procedure for the completion of tasks. In-class exercises, discussions, case studies and presentations will give the students the opportunity to demonstrate their capability of a) analytical competence and problem solving skills b) team work c) creativity and identification of innovation potential incl. problem solving.

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

Program Intended Learning Outcomes	Course Intended Learning Outcomes	Assessment Methods			
After completion of the program the students will be able…	After completion of the course the students will be able…	Oral Exam	Partici-pation in Class	Project Work	Presenta-tion
		40%	20%	20%	20%
		Individ-ual	Individ-ual	Collec-tive	Collective
1	**Responsible Leadership in Organizational Contexts**				
1.3 … to critically reflect on leadership concepts in a certain organizational context or in a specific case.	…to understand how to create highly motivated and collaborative multi-disci-plinary product development teams (with the intention to increase the probability of success rate of new product development)	x	x	x	x
1.4 ... to act responsibly from a scientific self-understanding and to act professionally.	…to analyze, reflect and act professionally / with integrity as a product development team member or as a leader / project owner	x		x	
2	**Creative Problem Solving Skills in a Complex Business Environment**				
2.1 ... to identify & classify problems.	…to search for, select and analyze relevant scientific literature		x	x	x
2.2 ... to analyze problems.	…to discuss complex problems in a comprehensive and profound manner in a written manner.			x	x
2.3 ... to creatively solve problems.	…to apply creative problem solving skills (e.g. using design thinking) and come up with own product ideas		x		x
2.4 … to explain problems and their solutions in a comprehensive manner.	…to demonstrate their oral communication skills in a well structured way and to discuss central contents in a convincing manner	x	x	x	x
3	**Applied research skills**				
4	**Innovation management and management of digital transformation**				
4.1 … to have fundamental knowledge of operational innovation processes and of processes of digital transformation.	… to have fundamental knowledge of operational innovation processes (and of processes of digital transformation).	x	x	x	
4.2 ... to assess a company´s innovation potential and its needs/opportunities with respect to digital transformation.	... to assess a company´s innovation potential and its needs/opportunities (with respect to digital transformation.)	x	x	x	
5	**Management of the challenges of global sustainability and awareness for social and corporate responsibilities**				
5.1 … to have a sound basic knowledge of sustainability issues.	……to intensify their expertise in life cycle assessment and related methods analysing commercial products	x	x		x

Literature and Course Materials

Remark: relevant literature for individual sessions/tasks will be provided by lecturer

1. Ulrich, K.T.: Eppinger, S.D.: Product Design and Development, New York.
2. Roberts, E.B.: Innovation Driving Product, Process and Market Change, MIT Sloan, Cambridge.
3. Juergens, U.: New Product Development and Production Networks, Berlin.
4. Gessinger, G.H., Materials and Innovative Product Development: From Concept to Market, Oxford.
5. Cross, N., Design Thinking, Oxford
6. Tidd, J., Bessant J., Pavitt K., Managing Innovation, J. Wiley
7. Trott, P., Innovation Management and New Product Development, Pearson

Assessment

The grading is based upon the in-class participation & exercises (20%), presentations (40%) as well as the oral exam (40%).

Teaching Philosophy

Student (learning) success has top priority.

An open, intensive exchange between the students and the lecturer is important, as is active collaboration. In addition to the course material, case studies and personal experiences of the lecturer (25 years in various management roles) contribute to the concretization of the topics. Furthermore, guest lectures by proven (company) experts are held in the context of the lecture to deepen the learning. The aim of the guest lectures is also to provide the students with industry contacts.