Module description: Operations Management Fundamentals

Module Code	t.BA.XV.OMG.22HS
ECTS Credits	4
Language of Instruction/Examination	German
Organizational Unit	IDP
Module Coordinator	Andreas Klinkert
Legal Framework	The module description is part of the legal basis in addition to the general academic regulations. It is binding. During the first week of the semester a written and communicated supplement can specify the module description in more detail.
Module Characteristic	Type 2a 4 consecutive lecture lessons per semester week and class
Module Description	A practice-oriented introduction to Operations Management, which conveys the basic concepts in a precise and illustrative way and gives a broad overview of the relevant topics. Selected quantitative models and methods and their practical application are discussed in depth.
Module Content	**Operations Management (OM) is one of the central topics of business engineering and management. It focuses on the operational systems and processes of a company, i.e. the fundamental, value-creating business areas responsible for the creation and delivery of products and services. OM comprises the design, operation and continuous adaptation and improvement of these areas. Quantitative Operations Management (cf. Operations Research) addresses the analysis and optimization of specific OM tasks by means of mathematical models and methods.** **This course offers a practice-oriented introduction to OM with the aim of conveying the basic concepts of OM in a precise and illustrative manner, and providing a broad overview of the relevant topics of OM and their interrelationships. A selection of important OM topics, with a focus on strategic tasks, is discussed in detail and illustrated with real-world examples and exercises. Methodologically oriented chapters give a deeper insight into selected quantitative models and methods of OM and show their practical application and implementation, mainly by means of spreadsheets. The course covers in particular a selection of the following topics:** **Introduction to OM and basic concepts** **Strategic aspects of OM** **Overview of the relevant subject areas** **Qualitative process analysis** **Quantitative process analysis** **Aspects of product planning** **Process and facilities planning** **Layout planning** **Capacity and location planning**
Prerequisite Knowledge	No previous knowledge required.

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Learning Objectives (Competences)	Students...	Competencies	Taxonomies
	You are able to adequately assess real-world problems from the practice of OM, to approach them systematically and to analyze them qualitatively and quantitatively, and can identify suitable methodological approaches and tools for their solution.	M, F	K3, K4, K5, K6
	You are capable of implementing and applying certain quantitative methods and elementary optimization models of OM in a spreadsheet.	M, F	K2, K3
	You are familiar with selected quantitative models and methods of OM, especially in the areas of process analysis, facilities planning, layout planning, location planning and capacity planning.	F, M	K1, K2, K3
	You know and understand fundamental problems, decisions and objectives as well as possible solutions in the various areas of OM.	F, M	K1, K2, K3
	You have an overview of the relevant topics and concepts of Operations Management (OM).	F	K1, K2

Performance Assessment

End-of-module exam	Assessment	Length (min.)	Weighting	Form
written exam	Grade	90	100	acc. to module agreement

Performance assessment during the semester	Assessment	Length (min.)	Weighting	Form
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Classroom Attendance Requirement	None
Learning material	
Comments	