

t.OMA1 - Operations Management 1

Person responsible for the course:	Andreas Klinkert, klnk
Credits:	4
Valid for:	2011/2012
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Learning objectives:

The students

- have an overview of the relevant topics and concepts of strategic Operations Management ("strategic OM")
 - know basic issues, decisions and objectives as well as possible solution approaches in the different areas of strategic OM
 - are acquainted with several quantitative methods of OM, in particular in process analysis, queueing theory and forecasting
 - are able to implement and apply certain quantitative procedures and elementary optimization models in a spreadsheet
 - are capable to adequately assess real-world problems from the practice of strategic OM, to approach them systematically and analyze them qualitatively as well as quantitatively, and to identify suitable methodological approaches and tools for their solution
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Course content:

Operations Management (OM) basically deals with an enterprise's operational systems and processes, i.e. the central value-generating business areas responsible for the creation and delivery of products and services. Principal functions of OM are the "design", "operation" and continuous adaptation and "improvement" of these areas. Quantitative Operations Management (cf. Operations Research) is concerned with the analysis and optimization of specific problems of OM by means of mathematical models and methods.

Operations Management 1 principally covers the "strategic" areas of OM, which devise an enterprise's infrastructure and organization in the long term, typically involving complex and expensive decisions. After giving a overview of the relevant themes of strategic OM, the various topics are discussed in detail and illustrated with examples. Furthermore, methodologically oriented chapters provide insight into the quantitative techniques of OM. The course comprises in particular the following subjects:

- Introduction to OM, concepts, decisions and objectives
 - Strategy of OM
 - Basics of process analysis
 - Product planning
 - Process and facility planning
 - Layout planning
 - Elements of queueing theory
 - Capacity and location planning
 - Introduction to forecasting
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Previous knowledge:

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Teaching method:

Type of lesson:	Number of lessons per week:
Lecture	14 x 2L
Tutorial/Practicum	14 x 2L
Group teaching	
Block instruction	
Seminar	

Assessment:

According to the table or as specified in writing by the lecture at the beginning of the semester!

Number	Type	Weighting
1	End of term exam	100%
	Exam during the semester	
	Further assessments	

Language of instruction:

German

Instruction material:

- Course slides (PDF)

Recommended literature:

- Jacobs, F.R., Chase, R., Operations and Supply Chain Management, 13th Edition, McGraw-Hill/Irwin, 2010 (classical text book in OM, optional for illustration and extension of the course material)

Comments:

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