SERVICE DESIGN & ENGINEERING (SDE)

DR. GERHARD GUDERGAN

SYLLABUS

FIR at RWTH Aachen University | Institute for Industrial Management
RWTH Campus Cluster Logistik
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WINTER TERM 2019/20

COURSE OVERVIEW

Course Name:	**Service Design & Engineering (SDE)**
Degree Programs:	1. Master Wi.Ing. alle Fachrichtungen 2. Master BWL 3. Master Wirtschaftswissenschaften 4. Erasmus / exchange students on the M.Sc. level
Lecturers:	Dr. **Gerhard Gudergan**
Teaching assistant:	Maximilian Schacht (Maximlian.Schacht@fir.rwth-aachen.de)
Location and Time:	**FIR, Campus-Boulevard 55, 52074 Aachen** **1. The exact location will be announced via RWTHmoodle (or E-Mail)**

Session	Date	Time
Session I *Lecture & Exercise*	Fr., 11.10.2019	8:30am – 11:45am 12:45pm – 16:00pm
Session II *Lecture & Exercise*	Fr., 25.10.2019	8:30am – 11:45am 12:45pm – 16:00pm
Session III *Lecture & Exercise*	Fr., 29.11.2019	8:30am – 11:45am 12:45pm – 16:00pm
Session IV *Lecture & Exercise*	Fr., 06.12.2019	8:30am – 11:45am 12:45pm – 16:00pm
Session V *Lecture & Exercise*	Fr., 13.12.2019	8:30am – 11:45am 12:45pm – 16:00pm
Session VI *Final presentation/ exam*	Fr., 17.01.2020	8:30am – 11:45am 12:45pm – 16:00pm

Content Description:

This lecture follows the various activities along the stages of the service innovation process containing design and engineering of services and business models.

Designing new services is of increasing importance for companies both to develop successful business strategies and to develop and implement new and successful business models. The objective of this class is to introduce into a comprehensive set of methods and tools which guide through the design of new services. The perspective of the business manager is taken and enhanced by an in-depth in-sight of academic and research challenges as well. We will have a focus on management questions and will take a framework which organizes the different tasks to design a new service concept within the context of a new business model. There will be a specific focus and a stepwise methodology to systematically designing innovative services. We will learn why and when to use the different methods and will learn how to manage the overall design process. The class is case-study based.

	The industrial case study will be introduced by partners and we will solve the given problem in a team based approach. There will be lectures to introduce into the overall methodology and tools and workshops/ exercises to experience how to make use of the knowledge gained.
Qualification Objectives:	After participating in this course participants shall … ▪ Acquire a sound understanding of the importance of new services for successful business strategies and new business models ▪ Differentiate various understandings of new service design and engineering - Acquire competences to successfully manage a new service design project and process ▪ Structure the design process and integrate with other corporate functions such as marketing and engineering ▪ Know about tools and methods of new service design and engineering ▪ Argue about future trends the service industry
Literature:	We use three different kinds of materials: (1) lecture, (2) case studies and (3) scientific paper for the background
Examination:	The course grade will be determined based on one of the following modes of evaluation: (A) colloquium (50%) and written exam (60 minutes, 50%); or **(B) colloquium (50%) and written term paper (50%);** or (C) written exam (60 minutes, 100%) The mode of evaluation (A, B, or C) will be announced and publicly displayed prior to the first session. Otherwise, option (B) applies. **(B) You will be required to prepare a presentation and a written term paper of your case solution within your group.** A maximum of 60 points can be obtained for each of the two elements. The final points and grade is the weighted average of the two elements – and you need 50 % of all points to pass the course. <u>Note for M.Sc. W-Ing students:</u> In addition to the aspects above, according to ÜPO §10 (8) and the program-specific regulations (fachspezifische PO for M.Sc. W.Ing.) §9 (2) all industrial engineers also have to pass each of the two examination elements individually.
Participation Requirements:	▪ Solid command of English ▪ This class demands the continuous participation in the class discussions and the preparation of case materials or paper assignments before each session.

Group Size:	40 participants (max).
Type of Teaching:	Interactive lecture, method exercises in groups, student presentations
Language:	All lectures and materials will be in English language.
Credits:	5

Note:

- This course will be managed via the **e-learning platform RWTHmoodle**. All lecture slides and readings will be deposited here.
- **Required case reading for the first session** will be communicated via e-mail and RWTHmoodle to all class participants before the first lecture.