



SERVICE DESIGN & ENGINEERING (SDE)

DR. GERHARD GUDERGAN

SYLLABUS

FIR at RWTH Aachen University | Institute for Industrial Management
Cluster Smart Logistics on RWTH Aachen Campus
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WINTER TERM 2020/21

COURSE OVERVIEW

Course Name:	Service Design & Engineering (SDE)
Degree Programs:	<ol style="list-style-type: none"> 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:	Jonas Müller (jonas.mueller@fir.rwth-aachen.de)
Location and Time:	FIR, Campus-Boulevard 55, 52074 Aachen or digital format The exact format will be announced via RWTHmoodle (or E-Mail)

Session	Date	Time
Session I <i>Lecture & Exercise</i>	Fr., 20.11.2020	8:30am – 11:45am 12:45pm – 16:00pm
Session II <i>Lecture & Exercise</i>	Fr., 04.12.2020	8:30am – 11:45am 12:45pm – 16:00pm
Session III <i>Lecture & Exercise</i>	Fr., 11.12.2020	8:30am – 11:45am 12:45pm – 16:00pm
Session IV <i>Lecture & Exercise</i>	Fr., 22.01.2021	8:30am – 11:45am 12:45pm – 16:00pm
Session V <i>Lecture & Exercise</i>	Fr., 29.01.2021	8:30am – 11:45am 12:45pm – 16:00pm
Session VI <i>Final presentation/ exam</i>	Fr., 12.02.2021	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 the 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 that 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:	<p>After participating in this course participants shall ...</p> <ul style="list-style-type: none"> ▪ 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 the tools and methods of new service design and engineering ▪ Argue about future trends in the service industry
Literature:	We use three different kinds of materials: (1) lecture, (2) case studies and (3) scientific paper for the background
Examination:	<p>The course grade will be determined based on one of the following modes of evaluation:</p> <p>(A) colloquium (class participation) (weighting 50%) and written exam (60 minutes duration) weighting 50%); or</p> <p>(B) colloquium (class participation) (weighting 50%) and written term paper (weighting 50%); or</p> <p>(C) written exam duration: (60 minutes) (weighting 100%)</p> <p>As a rule, grading will be based on mode B. The final mode of evaluation (A, B, or C) will be announced and publicly displayed before the first class session.</p> <p>To pass the exam, you will be required to prepare a presentation and a written term paper of your case solution within your group.</p>
Participation Requirements:	<ul style="list-style-type: none"> ▪ Solid command of English ▪ This class demands 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 the 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.