



Bachelorseminar: Value Chain Management (TENTATIVE)

Real-world case in Porsche Repair Shop using Virtual Reality

This new seminar focuses on process management in a **Porsche old timer** repair shop. Students will focus on analyzing operational processes and deriving suggestions for step-by-step improvement based on real data and records from the company and in interactions with the real leadership of the repair shop. In addition, students will have access to a **Virtual Reality experience** of the repair shop for a self-paced immersive experience of all operational processes.

This seminar prepares students for a practical thesis project in the context of operations and supply chain management and for their later jobs as managers in industry.

Motivation

The operational processes within a company transform inputs into outputs and are the heart of the value chain. All companies depend on their ability to practice *Genchi genbutsu* (現地現物), which represents going to the factory and seeing what is happening. The next key skill is to practice *Kaizen* (改善), which represents improvement. No factory can operate without these two concepts. This seminar focuses on a repair shop as maintenance and repair operations (MRO) are involved in three of the four elementary processes that close the loop from linear (production → waste) to circular supply chains: repair, reuse, recycle.

Goal

The course aims to teach students how to i) understand a practical problem in a new context, ii) extract useful information from scientific literature, iii) analyze real processes using empirical data and the literature, and iv) derive a practically applicable roadmap for *Kaizen*. Students will also acquire soft skills by working in project teams and by interacting with employees and managers of the Porsche repair shop.

Lecturing format

The meetings will involve very limited frontal lecture time. I will provide an introduction to the case, tips and tricks for searching scientific databases, and hints of possible concepts and methodologies that may prove to be useful. The remaining sessions will be used for peer coaching, coaching by scientific staff, and presentations.

Presentation and Report

The project will include a mid-term presentation (20%), a final presentation (40%), and a management report (40%). The mid-term presentation describes the planned approach and literature insights, the final presentation describes the *Kaizen* roadmap, and the management report supports the final presentation with all details and analyses that cannot be shown in a presentation.

Handouts and materials

All materials will be made available online in due time.

Language

The official course language is English. Teams will be composed such that each team includes German-speaking students to make sure that all teams can interact with workers, where necessary.

Prerequisites

No particular requirements besides an interest in operational processes and research in the field.



Course Agenda

April	1	2	3	4	5
	8	9	10	11	12
	Meeting 1 Introduction				The second half of the week will include online coaching options
	15	16	17	18	19
	Meeting 2 Coaching				The second half of the week will include online coaching options
	22	23	24	25	26
	Meeting 3 Mid-term presentation				The second half of the week will include online coaching options
May/Apr	29	30	1	2	3
	Meeting 4 Coaching		Holiday		The second half of the week will include online coaching options
May	6	7	8	9	10
	Meeting 5 Coaching			Holiday	The second half of the week will include online coaching options
	13	14	15	16	17
	Meeting 6 Coaching				The second half of the week will include online coaching options
	20	21	22	23	24
	Holiday				The second half of the week will include online coaching options
	27	28	29	30	31
Meeting 7 Final presentation					



Show understanding of the problem in practice. Connect the problem with scientific literature. Propose a solution approach based on practice and literature.



Show short-term and long-term improvement potentials. Show your work: how did you use data/facts to support your analyses? What are paths to implementation?

The lecturer

Jun.-Prof. Dr. Henrik Franke
WiSo Faculty | SCM Area

Contact

Level-1 support: Ask your question in the discussion forum in ILIAS. Students can also help each other here. I will follow and participate in the discussion.

Level-2 support (non-urgent): Approach me after class.

Level-2 support (urgent): E-Mail me: franke@wiso.uni-koeln.de