Module 684 Lean Management

1	Module number	Study programme	Semester	Offered in	Duration	Module type	Workload (h)	ECTS points
	684	WNB-SUS	5	☐WS ☐ SS	1 semester	Compulsory/Elective	150	5

2	Courses	Teaching and learning form	Contact time (SWS)	Contact time (h)	Self-study (h)	Language
	a) Lean Management	Lecture	2	30	90	English
	b) Business Processes	Lecture and Lab	2	30		

3 **Learning outcomes and competences**

After successfully completing the module, students can...

Knowledge and understanding

a) Lean Management

- Lean management is an approach to continuous process optimization and includes the efficient design of the entire value chain. With the help of various lean methods, procedures and principles of thought, "lean management" pursues the goal of harmonizing processes and creating a holistic production system without waste. And that across all areas of the company.
- Students should understand the basic lean principles from the areas of logistics and production.

b) Business Processes

- Understanding characteristics and elements of a business process
- Understand business process categories
- Understand the importance of ERP systems and the underlying technical characteristics

Use, application and generation of knowledge

Use and transfer

a) Lean Management

- Students should analyze solutions from the lean perspective of logistics and production and create them themselves

b) Business Processes

- Modeling of business processes using business process notations
- Selection of suitable organizational forms
- Apply knowledge of ERP systems to current problems

Scientific innovation

Communication and cooperation

- Present content and discuss it professionally.
- Justify the developed solution theoretically and methodically.
- Communicate and cooperate in the group in order to find adequate solutions for the task at hand.

Scientific self-conception/professionalism

- Interpret Lean Management findings and business processes and draw valid conclusions.
- Use the learned knowledge, skills and competences for evaluation and interpret them from other points of view.

4 **Content**

a) Lecture Lean Management and Logistics and Production:

- The tools of lean management: push/pull, kanban, value stream, SMED, 5S

b) Lecture: Business Processes:

- Introduction of business processes
- Business process modeling: event-driven process chain (EPC), business process model and notation (BPMN)
- Business process management: organization
- Business process controlling: controlling cycle, balanced process scorecard
- Business Process Improvement: Business Process Reengineering vs. Evolutionary Improvements

5 **Participation requirements**

obligatory: none

recommended: 677 Operations

6	**Forms of examination and requirements for awarding credit points** a) and b) 45-minute exam and project work [graded]
7	**Further use of the module** Compulsory module at WNB in the specialization SOP; as an elective module for other specializations at WNB as well as for TAB, TBB and MTB
8	**Module manager and full-time lecturer** Prof. Dr. Frederik Reichert
9	**Literature** • Rother, Mike: Learning to See: Value-Stream Mapping to Create Value and Eliminate Muda : Version 1.3 June 2003. • Wertanalyse - das Tool im Value Management: Idee, Methode, System. Deutschland, Springer Berlin Heidelberg, 2011. • Rosing, H., Scheel, H., Scheer, A.W. (2014): The Complete Business Process Handbook: Body of Knowledge from Process Modeling to BPM
10	**Last updated** 07.02.2025