Course of study/ focus of study: M.Sc. Produktionstechnik und -management M.Sc. Nachhaltige Energiesysteme im Maschinenbau M.Sc. Berechnung und Simulation im Maschinenbau M.Sc. Konstruktionstechnik und Produktentwicklung im Maschinenbau	
Module name / title	**Product Lifecycle Management (engl.)**
Module number	PLM
Module coordinator/ person responsible	Herr Prof. Dr. Hans-Joachim Schelberg
Duration of the module/ semester/ frequency	1 Semester/ first or second semester/ annually
Credits (CP)/ semester hours per week (SHW)	5 LP/ 3.00 SWS
Type of module , Applicability of the module	Course-specific elective module
Workload	Contact hours: 51 h and Self-study: 99 h (Basis: 17 semester weeks (incl. exam time), 1 SHW = 60 minutes)
Module prerequisites Requirements for participation/ previous knowledge	Recommended: Technical English, presentation
Teaching language	Teaching language: English Alternate teaching language: German If there is more than one teaching language, the used teaching language will be announced by the lecturer.
Competencies gained/ Learning Outcome	At the end of this course, the attendants will be qualified to substantially contribute to the definition and implementation of professional PLM initiatives. Students will acquire a deep insight into Product Lifecycle Management fundamentals, including enterprise strategy, guiding principles, concepts, processes, methods, organization, best practices, and tools. They will learn to analyze, to formally describe, and to evaluate as-is processes and tools used across design disciplines. As a result, they will be enabled to define elements of a strategic approach and roadmap to implement PLM. Finally, the students will have basic capabilities to design and to implement selected engineering-related to-be processes such as CMII-based Global Change&Configuration Management, Requirements Management, Service Information Management, Product Document Management, or Environmental/Regulatory Compliance Management.
Content of the module	- Introduction to Product Life Cycle Management - Fundamentals of Business Process Analysis, Description, and Optimization - Product life cycle processes: The PLM Process Landscape - Detailed investigation of selected processes such as: - CMII-based Global Change&Configuration Management - Requirements Management - Product Document Management - Service Information Management - Environmental/Regulatory Compliance - Enterprise strategy and associated product life cycles - PLM-Systems: Technologies, Tools, Provider, Strategies - Design and execution of a PLM initiative

Requirements for the award of credit points (Study and exam requirements)	Regular examination type for module testing: written report/paper (PL) Further possible examination types: written exam Where more than one possible examination type is used in the module, the examination type to be used is to be made known by the responsible lecturer at the start of the course.
Learning and teaching types/ methods/ media types	Facilitated Team Work, eLearning, Lectures, Self-paced Learning
Literature	John Stark - Product Lifecycle Management: 21st century Paradigm for Product Realisation Antti Saaksvuori - Product Lifecycle Management Michael Grieves - Driving the Next Generation of Lean Thinking John Stark - Global Product: Strategy, Product Lifecycle Management and the Billion Customer Question Steven Eppinger - Product Design and Development