Course title	*Design Exercise 2*
Course code	*MABB432W*
Module coordinator	*Miriam Heinrich*
Lecturer	*Prof. Dr.-Ing. Hirsch*
Level of course	*Bachelor*
Recommended prerequisites	*Mechanics, Machine Elements, Design Methods, CAD,*
Type of course	*Project*
Weekly lecture hours (SWS)	*3*
ECTS credits	*3*
Workload	*90h, 10 h course attendance, 80 h self-study*
Assessment (grading; pass/fail)	*not graded*
Regular cycle	*Each semester*
Language of instruction	*English*
Contents:	*The students apply their theoretical knowledge acquired in previous courses to an actual complex task. In this context, they have to consider design guidelines and the design and layout requirements set in DIN and VDI standards. In order to fulfil their tasks, they have to form teams and determine a time plan they have to comply with during the course of the project. The progress of the project is reviewed periodically in milestone meetings.*
Learning outcome (competencies):	*After having successfully completed the course, the students should* *• be able to design a complex assembly or machine in consideration of function, load, stress and fatigue,* *• have improved their capability to work in a team,* *• be able to use evaluation criteria,* *• have learned to defined benchmarks (milestones) for an effective time management.*
Teaching methods	*☒Lecture ☒Group work* *☒Exercises ☐Simulation* *☐Video feedback ☐Others:*
Assessment methods	*Written report, drawings*
Recommended reading	*Course materials Hochschule Karlsruhe:* *Technische Mechanik 1 und 2, Maschinenelemente 1 und 2, Konstruktionslehre 1,* *• Roloff/Matek: Maschinenelemente (Vieweg Verlag),* *• Niemann/Winter: Maschinenelemente (Springer Verlag)* *• Pahl/Beitz: Konstruktionslehre* *• DIN- and VDI-standards*
Additional information	*The qualification of all participants will be checked in a short examination.* *Pre-condition for offering the Design Execise 2 is a team of at least 4 qualified students.*
Recognition of credits	