Course title	*Design Exercises 1*
Course code	*MABB332*
Module coordinator	*Miriam Heinrich*
Lecturer	*Prof. Wollfarth*
Level of course	*Bachelor*
Recommended prerequisites	It is intended to set up a qualifying test at the beginning of the course. Knowledge of: Engineering mechanics, design methods, *selection and dimensioning of machine elements (e.g. shafts, bearings,…), CAD program CREO.*
Type of course	*Exercise*
Weekly lecture hours (SWS)	2
ECTS credits	*2*
Workload	In total 60 h, 30 h course attendance (exercise instruction, presentations, group meetings), 30 h self study
Assessment (grading; pass/fail)	*not graded*
Regular cycle	*Each semester*
Language of instruction	*English*
Contents:	Design Exercise 1 is a one semester course for practicing the contents and knowledge from former courses like Machine Parts 1, Technical Mechanics. 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 they have learned in previous lectures. 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.
Learning outcome (competencies):	After having successfully completed the course, the students should • be able to design a simple assembly in consideration of load, stress and fatigue, • have improved their capability to work in a team, • have learned to defined benchmarks (milestones) for an effective time management.
Teaching methods	☐Lecture ☒Group work ☒Exercises ☐Simulation ☐Video feedback ☐Others: Please click here for inserting text
Assessment methods	*Final report (30-40 pages w/o appendix)*
Recommended reading	*R.C. Hibbeler: Engineering Mechanics Statics* *R.C. Hibbeler: Mechanics of Materials* *M.F. Spotts: Design of Machine Elements* *R. Mott et al.: Machine Elements in Mechanical Design*
Additional information	*Please fill in*
Recognition of credits	*Will be filled in by coordinators*