

Course of Study Theoretical Mechanical Engineering (Study Cohort w19)

Sample course plan A Master Theoretical Mechanical Engineering (TMBMS)
Specialisation Numerics and Computer Science

Core qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

LP	Semester 1	Form Hrs/wk	Semester 2	Form Hrs/wk	Semester 3	Form Hrs/wk	Semester 4	Form Hrs/wk				
1	Finite Elements Methods	VL 2	Numerical Treatment of Ordinary Differential Equations	VL 2	Research Project Theoretical Mechanical Engineering		Master Thesis					
2												
3												
4									Finite Element Methods	HÜ 2	Numerical Treatment of Ordinary Differential Equations	UE 2
5												
6												
7	Control Systems Theory and Design	VL 2	Applied Dynamics: Numerical and experimental methods	VL 2								
8												
9									Control Systems Theory and Design	UE 2	Applied Dynamics	PR 3
10												
11												
12												
13	Modelling and Optimization in Dynamics	VL 2	Computational Fluid Dynamics II	VL 2	Intelligent Autonomous Agents and Cognitive Robotics	VL 2						
14												
15									Flexible Multibody Systems	HÜ 2	Computational Fluid Dynamics II	UE 2
16												
17												
18												
19	Control Lab C	PR 1	Linear and Nonlinear System Identifikation	VL 2	Mathematical Image Processing	VL 3						
20												
21									Control Lab VII	PR 1	Linear and Nonlinear System Identifikation	UE 1
22												
23	Design and Implementation of Software Systems	VL 2	Design optimization and probabilistic approaches in structural analysis	VL 2								
24												
25									Design and Implementation of Software Systems	HÜ 2	Design Optimization and Probabilistic Approaches in Structural Analysis	
26												
27	Design and Implementation of Software Systems	PR 2	Design Optimization and Probabilistic Approaches in Structural Analysis									
28												
29												
30												
Business & Management (from catalogue) - 6LP												
Non-technical Courses for Master (from catalogue) - 6LP												

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.

