

Course of Study Theoretical Mechanical Engineering (Study Cohort w21)

Sample course plan A Master Theoretical Mechanical Engineering (TMBMS)

		Core qualification Compulsory		Specialisation Compulsory		Focus Compulsory		Thesis Compulsory				
Specialisation Robotics and Computer Science		Core qualification Elective Compulsory		Specialisation Elective Compulsory		Focus Elective Compulsory		Interdisciplinary complement				
		Form	Hrs/wk	Semester 2	Form	Hrs/wk	Semester 3	Form	Hrs/wk	Semester 4	Form	Hrs/wk
1	Finite Elements Methods			Numerical Treatment of Ordinary Differential Equations			Research Project Theoretical Mechanical Engineering			Master Thesis		
2	Finite Element Methods	VL	2	Numerical Treatment of Ordinary Differential Equations	VL	2						
3	Finite Element Methods	HÜ	2	Numerical Treatment of Ordinary Differential Equations	GÜ	2						
4												
5												
6												
7	Control Systems Theory and Design			Applied Dynamics: Numerical and experimental methods								
8	Control Systems Theory and Design	VL	2	Applied Dynamics	VL	2						
9	Control Systems Theory and Design	GÜ	2	Lab Applied Dynamics	PR	3						
10												
11												
12												
13	Modelling and Optimization in Dynamics			Computational Fluid Dynamics II			Advanced Topics in Control					
14	Flexible Multibody Systems	VL	2	Computational Fluid Dynamics II	VL	2	Advanced Topics in Control	VL	2			
15	Optimization of dynamical systems	VL	2	Computational Fluid Dynamics II	HÜ	2	Advanced Topics in Control	GÜ	2			
16												
17												
18												
19	Control Lab C			Linear and Nonlinear System Identification			Mathematical Image Processing					
20	Control Lab VII	PR	1	Linear and Nonlinear System Identification	VL	2	Mathematical Image Processing	VL	3			
21	Control Lab VIII	PR	1				Mathematical Image Processing	GÜ	1			
22	Robotics			Design optimization and probabilistic approaches in structural analysis								
23	Robotics: Modelling and Control	IV	4	Design Optimization and Probabilistic Approaches in Structural Analysis	VL	2						
24	Robotics: Modelling and Control	PBL	2	Design Optimization and Probabilistic Approaches in Structural Analysis	HÜ	2						
25												
26												
27												
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.

