

Course of Study Theoretical Mechanical Engineering (Study Cohort w19)

Sample course plan A Master Theoretical Mechanical Engineering (TMBMS)

Specialisation Materials Science		Semester 2		Semester 3		Semester 4	
		Form	Hrs/wk	Form	Hrs/wk	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		
3	Finite Element Methods	HÜ	2	Numerical Treatment of Ordinary Differential Equations	GÜ		
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		
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		Materials Physics and Atomistic Materials Modeling	
14	Flexible Multibody Systems	VL	2	Computational Fluid Dynamics II	VL	2	
15	Optimization of dynamical systems	VL	2	Computational Fluid Dynamics II	HÜ	2	
16							
17							
18							
19	Control Lab C			Linear and Nonlinear System Identifikation		Advanced Functional Materials	
20	Control Lab VII	PR	1	Linear and Nonlinear System Identification	VL	2	
21	Control Lab VIII	PR	1				
22	Control Lab IX	PR	1				
22	Polymers			Design optimization and probabilistic approaches in structural analysis			
23	Structure and Properties of Polymers	VL	2	Design Optimization and Probabilistic Approaches in Structural Analysis	VL	2	
24	Processing and design with polymers	VL	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.

