

Course of Study Theoretical Mechanical Engineering (Study Cohort w20)

Sample course plan A Master Theoretical Mechanical Engineering (TMBMS)

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

Specialisation Simulation Technology			
1	Finite Elements Methods		Numerical Treatment of Ordinary Differential Equations
2	Finite Element Methods	VL 2	Numerical Treatment of Ordinary Differential Equations
3	Finite Element Methods	HÜ 2	Numerical Treatment of Ordinary Differential Equations
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
9	Control Systems Theory and Design	GÜ 2	Lab Applied Dynamics
10			
11			
12			
13	Modelling and Optimization in Dynamics		Computational Fluid Dynamics II
14	Flexible Multibody Systems	VL 2	Computational Fluid Dynamics II
15	Optimization of dynamical systems	VL 2	Computational Fluid Dynamics II
16			
17			
18			
19	Control Lab C		Linear and Nonlinear System Identification
20	Control Lab VII	PR 1	Linear and Nonlinear System Identification
21	Control Lab VIII	PR 1	
22	Control Lab IX	PR 1	
22	Material Modeling		Design optimization and probabilistic approaches in structural analysis
23	Material Modeling	VL 2	Design Optimization and Probabilistic Approaches in Structural Analysis
24	Material Modeling	GÜ 2	Design Optimization and Probabilistic Approaches in Structural Analysis
25			
26			
27			
28			Numerical Algorithms in Structural Mechanics
29			Numerical Algorithms in Structural Mechanics
30			Numerical Algorithms in Structural Mechanics
31			
32			
33			
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.

