

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 Aircraft Systems Engineering

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		Aircraft Cabin Systems	
14	Flexible Multibody Systems	VL	2	Computational Fluid Dynamics II	VL 2	Aircraft Cabin Systems	
15	Optimization of dynamical systems	VL	2	Computational Fluid Dynamics II	HÜ 2	Aircraft Cabin Systems	
16							
17							
18							
19	Control Lab C			Linear and Nonlinear System Identification			
20	Control Lab VII	PR	1	Linear and Nonlinear System Identification	VL 2		
21	Control Lab VIII	PR	1				
22	Aircraft Energy Systems (FS1)			Design optimization and probabilistic approaches in structural analysis			
23	Aircraft Systems I	VL	3	Design Optimization and Probabilistic Approaches in Structural Analysis	VL 2		
24	Aircraft Systems I	HÜ	2	Design Optimization and Probabilistic Approaches in Structural Analysis	HÜ 2		
25							
26							
27							
28				Flight Control Systems (FS2)			
29				Aircraft Systems II	VL 3		
30				Aircraft Systems II	HÜ 2		
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.

