Course of Study Product Development, Materials and Production (Study Cohort w17)

Sample course plan F Master Product Development, Materials and Production (PEPMS)
Specialisation Production

Legend:

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	**Vibration Theory**			**Practical Course Product Development, Materials and Production**			**Research Project Product Development, Materials and Production**			**Master Thesis**		
2	Vibration Theory	VL	4	Practical Course Product Development, Materials and Production	FL	6						
3												
4												
5												
6												
7	**Finite Elements Methods**			**Automation Technology and Systems (part 2)**								
8	Finite Element Methods	VL	2	Automation Technology	VL	2						
9	Finite Element Methods	HÜ	2	Automation Technology	UE	1						
10				**High-Order FEM**								
11				High-Order FEM	VL	3						
12				High-Order FEM	HÜ	1						
13	**Production Planning & Control and Digital Enterprise**						**Selected Topics of Product Development, Materials Science and Production (Alternative A: 12 LP) (part 2)**					
14	Production Planning and Control	VL	2				Selection from a catalog					
15	Production Planning and Control	UE	1									
16	The Digital Enterprise	VL	2									
17	Exercise: The Digital Enterprise	UE	1									
18												
19	**Automation Technology and Systems (part 1)**			**Selected Topics of Product Development, Materials Science and Production (Alternative A: 12 LP) (part 1)**			**Robotics**					
20	Handling and Assembly Systems	VL	2	Selection from a catalog			Robotics: Modelling and Control	VL	3			
21	Handling and Assembly Systems	UE	1				Robotics: Modelling and Control	UE	2			
22	**Laser systems and methods of manufacturing design and analysis**											
23												
24	Methods for Analysing Production Processes	VL	2									
25	Laser Systems and Process Technologies	VL	2									
26												
27												
28	**Thermal Engineering**											
29	Thermal Engineering	VL	3									
30	Thermal Engineering	HÜ	1									
31												
32												
33												

Business & Management (from catalogue) - 6LP

Nontechnical Elective Complementary 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.