

Course of Study Materials Science (Study Cohort w20)

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

Sample course plan B Master Materials Science (MAMS)

Specialisation Nano and Hybrid Materials

1	Phenomena and Methods in Materials Science		Multiphase Materials (part 2)		Advanced Functional Materials		Master Thesis
2	Phase equilibria and transformations	VL 2	Polymer Composites	VL 2	Advanced Functional Materials	SE 2	
3	Experimental Methods for the Characterization of Materials	VL 2					
4			Advanced Laboratory Materials Sciences				
5			Advanced Laboratory Materials Sciences	PR 6			
6							
7	Multiphase Materials (part 1)				Study work on Modern Issues in the Materials Sciences		
8	Lecture: Multiscale Materials	VL 6					
9							
10	Materials Physics and Atomistic Materials Modeling		Mechanical Properties				
11	Materials Physics	VL 2	Mechanical Behaviour of Brittle Materials	VL 2			
12	Quantum Mechanics and Atomistic Materials Modeling	VL 2	Dislocation Theory of Plasticity	VL 2			
13	Exercises in Materials Physics and Modeling	GÜ 2					
14							
15							
16	Applied Computational Methods for Material Science		Interfaces and interface-dominated Materials (part 1)				
17	Applied Computational Methods for Material Science	PBL 3	Interfaces	VL 2			
18							
19			Quantum Mechanics of Solids		Particle Technology and Solid Matter Process Technology		
20			Quantum Mechanics of Solids	VL 2	Advanced Particle Technology II	VL 2	
21			Quantum Mechanics of Solids	GÜ 1	Advanced Particle Technology II	PBL 1	
22	BIO II: Biomaterials				Experimental Course Particle Technology	PR 3	
23	Biomaterials	VL 2					
24							
25			BIO II: Artificial Joint Replacement		Interfaces and interface-dominated Materials (part 2)		
26			Artificial Joint Replacement	VL 2	Nature's Hierarchical Materials	SE 2	
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.

