

Course of Study Materials Science (Study Cohort w21)

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

	Form	Hrs/wk	Semester 2	Form	Hrs/wk	Semester 3	Form	Hrs/wk	Semester 4	Form	Hrs/wk
1			Phenomena and Methods in Materials Science			Multiphase Materials			Advanced Functional Materials		
2			Phase equilibria and transformations	VL	2	Lecture: Multiscale Materials	VL	3	Advanced Functional Materials	SE	2
3			Experimental Methods for the Characterization of Materials	VL	2	Polymer Composites	VL	3			
4											
5											
6											
7			Materials Physics and Atomistic Materials Modeling			Advanced Laboratory Materials Sciences			Study work on Modern Issues in the Materials Sciences		
8			Materials Physics	VL	2	Advanced Laboratory Materials Sciences	PR	6			
9			Quantum Mechanics and Atomistic Materials Modeling	VL	2						
10			Exercises in Materials Physics and Modeling	GÜ	2						
11											
12											
13			Applied Computational Methods for Material Science			Mechanical Properties					
14			Applied Computational Methods for Material Science	PBL	3	Mechanical Behaviour of Brittle Materials	VL	2			
15						Dislocation Theory of Plasticity	VL	2			
16											
17											
18											
19			BIO II: Biomaterials			Interfaces and interface-dominated Materials (part 1)			Interfaces and interface-dominated Materials (part 2)		
20			Biomaterials	VL	2	Interfaces	VL	2	Nature's Hierarchical Materials	SE	2
21											
22						Quantum Mechanics of Solids			Particle Technology and Solid Matter Process Technology		
23						Quantum Mechanics of Solids	VL	2	Advanced Particle Technology II	VL	2
24						Quantum Mechanics of Solids	GÜ	1	Advanced Particle Technology II	PBL	1
25									Experimental Course Particle Technology	PR	3
26											
27											
28						BIO II: Artificial Joint Replacement					
29						Artificial Joint Replacement	VL	2			
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.

