

Course of Study Materials Science (Study Cohort w19)

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

	Semester 2		Semester 3		Semester 4	
	Form	Hrs/wk	Form	Hrs/wk	Form	Hrs/wk
1	Multiphase Materials		Phenomena and Methods in Materials Science		Advanced Functional Materials	
2	Applied Computational Methods for Material Science	PBL 3	Phase equilibria and transformations	VL 2	Advanced Functional Materials	SE 2
3	Polymer Composites	VL 2	Experimental Methods for the Characterization of Materials	VL 2		
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	Atomistic Materials Modeling	VL 2				
10	Exercises in Materials Physics and Modeling	GÜ 2				
11						
12						
13	Lecture: Multiscale Materials		Mechanical Properties			
14	Multiscale Materials	VL 6	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.

