

Course of Study Materials Science (Study Cohort w16)

Sample course plan B Master Materials Science (MAMS)
Specialisation Nano and Hybrid Materials

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	Multiphase Materials		Phenomena and Methods in Materials Science		Advanced Functional Materials		Master Thesis	
2	Structure and Properties of Composites	VL 2	Phase equilibria and transformations	VL 2	Advanced Functional Materials	VL 2		
3	Applied Computational Methods for Material Science	PBL 3	Experimental Methods for the Characterization of Materials	VL 2				
4								
5								
6								
7	Materials Physics and Atomistic Materials Modeling		Advanced Laboratory Materials Sciences		Project 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								
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: Endoprostheses and Materials (part 1)		BIO II: Endoprostheses and Materials (part 2)		Interfaces and interface-dominated Materials (part 2)			
20	Biomaterials	VL 2	Artificial Joint Replacement	VL 2	Nature's Hierarchical Materials	SE 2		
21								
22			Interfaces and interface-dominated Materials (part 1)		Particle Technology and Solid Matter Process Technology			
23			Interfaces	VL 2	Advanced Particle Technology II	VL 2		
24					Advanced Particle Technology II	UE 1		
25			Quantum Mechanics of Solids		Experimental Course Particle Technology	PR 3		
26			Quantum Mechanics of Solids	VL 2				
27			Quantum Mechanics of Solids	UE 1				
28								
29								
30								
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.

