

# 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 C Master Materials Science (MAMS)

Specialisation Engineering Materials		Semester 2		Semester 3		Semester 4		
	Form	Hrs/wk		Form	Hrs/wk		Form	Hrs/wk
1	<b>Phenomena and Methods in Materials Science</b>		<b>Multiphase Materials</b>		<b>Advanced Functional Materials</b>		<b>Master Thesis</b>	
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	<b>Materials Physics and Atomistic Materials Modeling</b>		<b>Advanced Laboratory Materials Sciences</b>		<b>Study work on Modern Issues in the Materials Sciences</b>			
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	<b>Applied Computational Methods for Material Science</b>		<b>Mechanical Properties</b>					
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	<b>Polymers</b>		<b>Structure and properties of fibre-polymer-composites</b>		<b>Examination of Materials, Structural Condition and Damages</b>			
20	Structure and Properties of Polymers	VL 2	Structure and properties of fibre-polymer-composites	VL 2	Examination of Materials, Structural Condition and Damages	VL 3		
21	Processing and design with polymers	VL 2	Structure and properties of fibre-polymer-composites	HÜ 1	Examination of Materials, Structural Condition and Damages	GÜ 1		
22			Structure and properties of fibre-polymer-composites	PBL 2				
23								
24								
25					<b>Non destructive testing of materials and parts</b>			
26					Non destructive testing of materials and parts	VL 2		
27					Non destructive testing of materials and parts	HÜ 1		
28					Non destructive testing of materials and parts	PBL 3		
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.

