Course of Study Materials Science (Study Cohort w22)

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

LP											
1	**Phenomena and Methods in Materials Science**			**Multiphase Materials**			**Advanced Functional Materials**			**Master Thesis**	
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	Übung zu Phänomene und Methoden der Materialwissenschaft	HÜ	2								
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	**Polymers**			**Structure and properties of fibre-polymer-composites**			**Examination of Materials, Structural Condition and Damages**				
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				**Fatigue of metallic structural materials and methods for extending service life**							
26				Fatigue of metallic structural materials	VL	2					
27				Method for life extension	VL	2					
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.