

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 A Master Materials Science (MAMS)

Specialisation Modeling			Semester 2			Semester 3			Semester 4		
	Form	Hrs/wk		Form	Hrs/wk		Form	Hrs/wk		Form	Hrs/wk
1	Multiphase Materials		Phenomena and Methods in Materials Science			Advanced Functional Materials			Master Thesis		
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	Material Modeling		Modeling Across The Scales			Nonlinear Structural Analysis					
20	Material Modeling	VL 2	Modeling Across The Scales	VL 2	Nonlinear Structural Analysis	VL 3					
21	Material Modeling	GÜ 2	Modeling Across The Scales - Exercise	GÜ 2	Nonlinear Structural Analysis	GÜ 1					
22											
23											
24											
25					Continuum Mechanics						
26					Continuum Mechanics	VL 2					
27					Continuum Mechanics Exercise	GÜ 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.

