

Course of Study Materials Science (Study Cohort w18)

Sample course plan A Master Materials Science (MAMS)
Specialisation Modeling

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									Applied Computational Methods for Material Science	PBL	3	Phase equilibria and transformations	VL	2	Advanced Functional Materials	SE	2
3												Experimental Methods for the Characterization of Materials	VL	2			
4									Polymer Composites	VL	2						
5																	
6																	
7	Materials Physics and Atomistic Materials Modeling		Advanced Laboratory Materials Sciences		Study work on Modern Issues in the Materials Sciences												
8																	
9									Materials Physics	VL	2	Advanced Laboratory Materials Sciences	PR	6			
10									Atomistic Materials Modeling	VL	2						
11	Exercises in Materials Physics and Modeling	UE	2														
12																	
13	Lecture: Multiscale Materials		Mechanical Properties														
14																	
15									Multiscale Materials	VL	6	Mechanical Behaviour of Brittle Materials	VL	2			
16												Dislocation Theory of Plasticity	VL	2			
17																	
18																	
19	Material Modeling		Modeling Across The Scales		Nonlinear Structural Analysis												
20																	
21									Material Modeling	VL	2	Modeling Across The Scales	VL	2	Nonlinear Structural Analysis	VL	3
22	Material Modeling	UE	2	Modeling Across The Scales - Exercise	UE	2			Nonlinear Structural Analysis	UE	1						
23																	
24																	
25					Continuum Mechanics												
26																	
27									Continuum Mechanics	VL	2						
28									Continuum Mechanics Exercise	UE	2						
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.

