

# Course of Study Materials Science (Study Cohort w16)

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

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	<b>Multiphase Materials</b>		<b>Phenomena and Methods in Materials Science</b>		<b>Advanced Functional Materials</b>		<b>Master Thesis</b>	
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	<b>Materials Physics and Atomistic Materials Modeling</b>		<b>Advanced Laboratory Materials Sciences</b>		<b>Project work on Modern Issues in the Materials Sciences</b>			
8	Materials Physics	VL 2	Advanced Laboratory Materials Sciences	PR 6				
9	Atomistic Materials Modeling	VL 2						
10								
11								
12								
13	<b>Lecture: Multiscale Materials</b>		<b>Mechanical Properties</b>					
14	Multiscale Materials	VL 6	Mechanical Behaviour of Brittle Materials	VL 2				
15			Dislocation Theory of Plasticity	VL 2				
16								
17								
18								
19	<b>Material Modeling</b>		<b>Modeling Across The Scales</b>		<b>Nonlinear Structural Analysis</b>			
20	Material Modeling	VL 2	Modeling Across The Scales	VL 2	Nonlinear Structural Analysis	VL 3		
21	Material Modeling	UE 2	Modeling Across The Scales - Exercise	UE 2	Nonlinear Structural Analysis	UE 1		
22								
23								
24								
25					<b>Continuum Mechanics</b>			
26					Continuum Mechanics	VL 2		
27					Continuum Mechanics Exercise	UE 2		
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.

