

Course of Study Materials Science (Study Cohort w17)

Sample course plan C Master Materials Science (MAMS)
Specialisation Engineering Materials

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	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	VL 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	Materials Physics	VL 2	Advanced Laboratory Materials Sciences	PR 6				
9	Atomistic Materials Modeling	VL 2						
10								
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	Polymers		Fibre-polymer-composites		Examination of Materials, Structural Condition and Damages			
20	Structure and Properties of Polymers	VL 2	Design with fibre-polymer-composites	VL 2	Examination of Materials, Structural Condition and Damages	VL 4		
21	Processing and design with polymers	VL 2	Structure and properties of fibre-polymer-composites	VL 2	Examination of Materials, Structural Condition and Damages	UE 1		
22								
23								
24								
25					Metallic and Hybrid Light-weight Materials			
26					Joining of Polymer-Metal Lightweight Structures	VL 2		
27					Joining of Polymer-Metal Lightweight Structures	PR 1		
28					Metallic Light-weight Materials	VL 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.