

Course of Study Materials Science (Study Cohort w15)

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

Legend:

Core qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core qualification Elective	Specialisation Elective	Focus Elective Compulsory	Interdisciplinary complement
Compulsory	Compulsory		

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	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	POL	3	Experimental Methods for the Characterization of Materials	VL	2						
4												
5												
6												
7	Materials Physics and Atomistic Materials Modeling			Advanced Laboratory Materials Sciences			Project work on Modern Issues in the Materials Sciences					
8	Materials Physics	VL	1	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	Design with Polymers and Composites			Manufacturing with Polymers and Composites - From Molecule to Part			Examination of Materials, Structural Condition and Damages					
20	Design with Polymers and Composites	VL	2	Manufacturing with Polymers and Composites	VL	2	Examination of Materials, Structural Condition and Damages	VL	4			
21	Joining of Polymer-Metal Lightweight Structures	VL	2	From Molecule to Composites Part	POL	2	Examination of Materials, Structural Condition and Damages	UE	1			
22	Joining of Polymer-Metal Lightweight Structures	PR	1									
23												
24												
25	Ceramics and Polymers											
26	Ceramics Technology	VL	2									
27	Structure and Properties of Polymers	VL	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.