Course of Study Materials Science (Study Cohort w18)

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	SE	2			
3												
4				Experimental Methods for the Characterization of Materials	VL	2						
5	Polymer Composites	VL	2									
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												
11	Atomistic Materials Modeling	VL	2									
12	Exercises in Materials Physics and Modeling	UE	2									
13	**Lecture: Multiscale Materials**			**Mechanical Properties**								
14												
15	Multiscale Materials	VL	6	Mechanical Behaviour of Brittle Materials	VL	2						
16												
17				Dislocation Theory of Plasticity	VL	2						
18												
19	**Polymers**			**Fibre-polymer-composites**			**Examination of Materials, Structural Condition and Damages**					
20												
21	Structure and Properties of Polymers	VL	2	Design with fibre-polymer-composites	VL	2						
22							Examination of Materials, Structural Condition and Damages	VL	3			
23	Processing and design with polymers	VL	2	Structure and properties of fibre-polymer-composites	VL	2						
24							Examination of Materials, Structural Condition and Damages	UE	1			
25							**Metallic and Hybrid Light-weight Materials**					
26												
27							Joining of Polymer-Metal Lightweight Structures	VL	2			
28												
29							Joining of Polymer-Metal Lightweight Structures	PR	1			
30							Metallic Light-weight Materials	VL	2			
	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.