

Course of Study Materials Science (Study Cohort w15)

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

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	Material Modeling			Modeling Across The Scales			Nonlinear Structural Analysis					
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							Continuum Mechanics					
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.