

Course of Study Materials Science and Engineering (Study Cohort w25)

Sample course plan A Master Materials Science and Engineering (MSEMS) Dual study program

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

Specialisation Modeling			
1	Practical module 1 (dual study program, Master's degree)	Practical module 2 (dual study program, Master's degree)	Practical module 3 (dual study program, Master's degree)
2	Practical term 1 0	Practical term 2 0	Practical term 3 0
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11	Applied Computational Methods for Material Science	Advanced Laboratory Materials Sciences	Advanced Functional Materials
12	Applied Computational Methods for Material Science PBL 4	Advanced Laboratory Materials Sciences PR 6	Advanced Functional Materials SE 2
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17	Materials Physics and Atomistic Materials Modeling	Mechanical Properties	Study work on Modern Issues in the Materials Sciences
18	Materials Physics VL 2	Mechanical Behaviour of Brittle Materials VL 2	
19	Quantum Mechanics and Atomistic Materials Modeling VL 2	Dislocation Theory of Plasticity VL 2	
20	Exercises in Materials Physics and Modeling GÜ 2	Exercise on mechanical properties HÜ 2	
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23	Phenomena and Methods in Materials Science	Multiphase Materials	
24	Phase equilibria and transformations VL 2	Lecture: Multiscale Materials VL 3	
25	Experimental Methods for the Characterization of Materials VL 2	Polymer Composites VL 3	
26	Übung zu Phänomene und Methoden der Materialwissenschaft HÜ 2		
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29	Materials Modeling	Quantum Mechanics of Solids	Nonlinear Structural Analysis
30	Material Modeling VL 2	Quantum Mechanics of Solids VL 2	Nonlinear Structural Analysis VL 3
31	Material Modeling GÜ 2	Quantum Mechanics of Solids GÜ 1	Nonlinear Structural Analysis GÜ 1
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35			Continuum Mechanics
36			Continuum Mechanics VL 2
37			Continuum Mechanics GÜ 2
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Business & Management (from catalogue) - 6LP			
Linking theory and practice (dual study program, Master's degree) (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.

