

Module overview B.Sc. Materialwissenschaft - 12 Semester

Degree Programme Guidelines as per 01.06.2024, Version: 01.06.2024 (SB2023VI)

The degree programme consists of 180 Credit Points (CP) in total:

Mandatory Subject Area:	137 CP		Elective Subject Area: 22 CP	
- including Lab Practical:	18 CP		Bachelor Thesis: 15 CP	
Interdisciplinary Elective area:	6 CP			

Language of Tuition:
GERMAN
Certificates required



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This leads to the following possible part-time semester course schedule:

1. Semester	2. Semester	3. Semester	4. Semester	5. Semester	6. Semester
Fundamentals of Materials Science (6 CP)	Thermodynamics of Solid State Bodies (5 CP)	Technical Mechanics for Materials Scientists (6 CP)	Sustainable Material Production and Processing (5 CP)	Real Crystals and their Properties (5 CP)	Mechanical Properties (6 CP)
Mathematics for Civil Engineers I (8 CP)	Mathematics for Civil Engineers II (8 CP)	Physics I for Materials Scientists (5 CP)	Physics II for Materials Scientists (5 CP)	Mathematics for Civil Engineers III (8 CP)	Numerical methods in materials science (3 CP)
Basic Lab Programming (3 CP)	Basic Lab I (3 CP)	Basic practical course in physics (3 CP)	Physical Chemistry I (6 CP)	General Education ** (3 CP)	Advanced Lab I (3 CP)
		Basic Lab II (3 CP)			
Ø 15 CP	Ø 15 CP	Ø 15 CP	Ø 15 CP	Ø 15 CP	Ø 15 CP
7. Semester	8. Semester	9. Semester	10. Semester	11. Semester	12. Semester
Characterization Methods of Material Science (6 CP)	Circular Materials* (5 CP)	Crystal Dynamics and Electronic Structure (5 CP)	Functional Properties of Condensed Matter (6 CP)	Materials Science Elective Subjects (6 CP)	Bachelor Thesis (15 CP)
General Chemistry (5 CP)	Structural Materials (6 CP)	Diffusion in Solid State Bodies (5 CP)	Technical-Science Elective Subjects (10 CP)		
Advanced Lab II (3 CP)	Materials Science Elective Subjects (6 CP)	Study Project and Scientific Presentations* (5 CP)	General Education ** (3 CP)		
Ø 15 CP	Ø 15 CP	Ø 15 CP	Ø 15 CP	Ø 15 CP	Ø 15 CP

* Bilingual module (German and English)

** Modules on application to the study office; catalog with already approved modules on the website of the FB