

Course of Study Technomathematics (Study Cohort w22)

Sample course plan B Bachelor Technomathematics (TMBS) Dual study program

Specialisation I. Mathematics, Specialisation II. Informatics, Specialisation III. Engineering Science, Specialisation

Legend:

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

IV_p Subject Specific Focus

1	Analysis for Technomathematicians (part 1)	Analysis for Technomathematicians (part 2)	Higher Analysis	Foundations of Management	Practical module 5 (dual study program, Bachelor's degree)	Computability and Complexity Theory
2	Analysis I for Technomathematicians VL 4	Analysis II for Technomathematicians VL 4	Higher Analysis VL 4	Introduction to Management VL 3	Practical term 5 0	Computability and Complexity Theory VL 2
3	Analysis I for Technomathematicians GÜ 2	Analysis II for Technomathematicians GÜ 2	Higher Analysis GÜ 2	Management Tutorial GÜ 2		Computability and Complexity Theory GÜ 2
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8				Practical module 4 (dual study program, Bachelor's degree)	Seminar Technomathematics	Bachelor thesis (dual study program)
9				Practical term 4 0	Seminar: Technomathematics SE 2	
10	Linear Algebra for Technomathematicians (part 1)	Linear Algebra for Technomathematicians (part 2)	Numerical Mathematics		Combinatorial Structures and Algorithms	
11	Linear Algebra 1 for Technomathematicians VL 4	Linear Algebra 2 for Technomathematicians VL 4	Numerical Mathematics VL 4		Combinatorial Structures and Algorithms VL 3	
12	Linear Algebra 1 for Technomathematicians GÜ 2	Linear Algebra 2 for Technomathematicians GÜ 2	Numerical Mathematics GÜ 2		Combinatorial Structures and Algorithms GÜ 1	
13				Graph Theory and Optimization		
14				Graph Theory and Optimization VL 2		
15				Graph Theory and Optimization GÜ 2		
16					Combinatorial Optimization	
17					Combinatorial Optimization VL 4	
18					Combinatorial Optimization GÜ 2	
19	Procedural Programming for Computer Engineers	Programming Paradigms	Mathematical Stochastics	Measure Theory and Stochastics		
20	Procedural Programming for Computer Engineers VL 2	Programming Paradigms VL 2	Mathematical Stochastics VL 4	Measure Theory and Stochastics VL 3		
21	Procedural Programming for Computer Engineers HÜ 1	Programming Paradigms HÜ 1	Mathematical Stochastics GÜ 2	Measure Theory and Stochastics GÜ 1		
22	Procedural Programming for Computer Engineers PR 2	Programming Paradigms PR 2				
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25	Practical module 1 (dual study program, Bachelor's degree)	Introduction to Electrical Engineering (Technomathematics)		Signals and Systems		
26	Practical term 1 0	Introduction to Electrical Engineering VL 3		Signals and Systems VL 3	Computernetworks and Internet Security	
27		Introduction to Electrical Engineering GÜ 2		Signals and Systems GÜ 2	Computer Networks and Internet Security VL 3	
28					Computer Networks and Internet Security GÜ 1	
29			Proseminar Technomathematics			
30			Proseminar Mathematics SE 2			
31	Introduction to Mechanics (Technomathematics)	Practical module 2 (dual study program, Bachelor's degree)	Practical module 3 (dual study program, Bachelor's degree)			
32	Introduction to Mechanics VL 3	Practical term 2 0	Practical term 3 0		Electrical Engineering III: Circuit Theory and Transients	
33	Introduction to Mechanics GÜ 2				Circuit Theory VL 3	
34					Circuit Theory GÜ 2	
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Linking theory and practice (dual study program, Bachelor's degree) - 6LP						
Technical Complementary Course I for Technomathematics (according to Subject Specific Regulations) - 6LP						
Technical Complementary Course II for Technomathematics (according to Subject Specific Regulations) - 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.

