Course of Study Technomathematics (Study Cohort w22)

Sample course plan F Bachelor Technomathematics (TMBS) Dual study program
Specialisation I. Mathematics, Specialisation II. Informatics, Specialisation III. Engineering Science, Specialisation IV. Subject Specific Focus

Legend:

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

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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
4						
5						
6						
7				**Practical module 4 (dual study program, Bachelor's degree)**	**Seminar Technomathematics**	**Compiler Construction**
8				Practical term 4 0	Seminar: Technomathematics SE 2	Compiler Construction VL 2
9						Compiler Construction GÜ 2
10	**Linear Algebra for Technomathematicians (part 1)**	**Linear Algebra for Technomathematicians (part 2)**	**Numerical Mathematics**			
11	Linear Algebra 1 for Technomathematicians VL 4	Linear Algebra 2 for Technomathematicians VL 4	Numerical Mathematics VL 4		**Introduction to Mathematical Modeling**	
12	Linear Algebra 1 for Technomathematicians GÜ 2	Linear Algebra 2 for Technomathematicians GÜ 2	Numerical Mathematics GÜ 2		Introduction in Mathematical Modeling VL 4	
13				**Functional Analysis**	Introduction in Mathematical Modeling GÜ 2	**Bachelor thesis (dual study program)**
14				Functional Analysis VL 4		
15				Functional Analysis GÜ 2		
16						
17						
18						
19	**Procedural Programming for Computer Engineers**	**Programming Paradigms**	**Mathematical Stochastics**			
20	Procedural Programming for Computer Engineers VL 2	Programming Paradigms VL 2	Mathematical Stochastics VL 4		**Electrical Engineering III: Circuit Theory and Transients**	
21	Procedural Programming for Computer Engineers HÜ 1	Programming Paradigms HÜ 1	Mathematical Stochastics GÜ 2		Circuit Theory VL 3	
22	Procedural Programming for Computer Engineers PR 2	Programming Paradigms PR 2			Circuit Theory GÜ 2	
23				**Optimization**		
24				Optimization VL 4		
25	**Practical module 1 (dual study program, Bachelor's degree)**	**Introduction to Electrical Engineering (Technomathematics)**		Optimization GÜ 2	**Engineering Mechanics III (Dynamics)**	
26	Practical term 1 0	Introduction to Electrical Engineering VL 3			Engineering Mechanics III VL 3	
27		Introduction to Electrical Engineering GÜ 2			Engineering Mechanics III GÜ 2	
28			**Proseminar Technomathematics**		Engineering Mechanics III HÜ 1	
29			Proseminar Mathematics SE 2			
30			**Practical module 3 (dual study program, Bachelor's degree)**			
31	**Introduction to Mechanics (Technomathematics)**	**Practical module 2 (dual study program, Bachelor's degree)**	Practical term 3 0			
32	Introduction to Mechanics VL 3	Practical term 2 0				
33	Introduction to Mechanics GÜ 2					
34						
35						
36						

Linking theory and practice (dual study program, Bachelor's degree) (from catalogue) - 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.