

# Course of Study Technomathematics (Study Cohort w17)

Sample course plan D Bachelor Technomathematics (TMBS)

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. Subject Specific Focus

LP	Subject	Form Hrs/wk	Semester 2	Form Hrs/wk	Semester 3	Form Hrs/wk	Semester 4	Form Hrs/wk	Semester 5	Form Hrs/wk	Semester 6	Form Hrs/wk
1	<b>Procedural Programming</b>		<b>Objectoriented Programming, Algorithms and Data Structures</b>		<b>Higher Analysis</b>		<b>Foundations of Management</b>		<b>Seminar Technomathematics</b>		<b>Numerical Algorithms in Structural Mechanics</b>	
2	Procedural Programming	VL 1	Objectoriented Programming, Algorithms and Data Structures	VL 4	Higher Analysis	VL 4	Introduction to Management	VL 3	Seminar: Technomathematics	SE 2	Numerical Algorithms in Structural Mechanics	VL 2
3	Procedural Programming	HÜ 1	Objectoriented Programming, Algorithms and Data Structures	VL 4	Higher Analysis	GÜ 2	Management Tutorial	HÜ 2			Numerical Algorithms in Structural Mechanics	GÜ 2
4	Procedural Programming	PR 2	Objectoriented Programming, Algorithms and Data Structures	GÜ 1								
5												
6												
7	<b>Analysis for Technomathematicians (part 1)</b>		<b>Analysis for Technomathematicians (part 2)</b>				<b>Solvers for Sparse Linear Systems</b>		<b>Hierarchical Algorithms</b>		<b>Boundary Element Methods</b>	
8	Analysis I for Technomathematicians	VL 4	Analysis II for Technomathematicians	VL 4			Solvers for Sparse Linear Systems	VL 2	Hierarchical Algorithms	VL 2	Boundary Element Methods	VL 2
9	Analysis I for Technomathematicians	GÜ 2	Analysis II for Technomathematicians	GÜ 2			Solvers for Sparse Linear Systems	GÜ 2	Hierarchical Algorithms	GÜ 2	Boundary Element Methods	HÜ 2
10												
11					<b>Numerical Mathematics</b>							
12					Numerical Mathematics	VL 4						
13					Numerical Mathematics	GÜ 2						
14												
15	<b>Linear Algebra for Technomathematicians (part 1)</b>		<b>Linear Algebra for Technomathematicians (part 2)</b>				<b>Automata Theory and Formal Languages</b>		<b>Matrix Algorithms</b>		<b>Bachelor Thesis</b>	
16	Linear Algebra 1 for Technomathematicians	VL 4	Linear Algebra 2 for Technomathematicians	VL 4			Automata Theory and Formal Languages	VL 2	Matrix Algorithms	VL 2		
17	Linear Algebra 1 for Technomathematicians	GÜ 2	Linear Algebra 2 for Technomathematicians	GÜ 2			Automata Theory and Formal Languages	GÜ 2	Matrix Algorithms	GÜ 2		
18												
19												
20					<b>Mathematical Stochastics</b>		<b>Software Engineering</b>		<b>Complex Analysis</b>			
21					Mathematical Stochastics	VL 4	Software Engineering	VL 2	Complex Analysis	VL 4		
22					Mathematical Stochastics	GÜ 2	Software Engineering	GÜ 2	Complex Analysis	GÜ 2		
23	<b>Electrical Engineering for Technomathematicians (part 1)</b>		<b>Electrical Engineering for Technomathematicians (part 2)</b>									
24	Electrical Engineering I for Technomathematicians	VL 2	Electrical Engineering II for Technomathematicians	VL 2								
25	Electrical Engineering I for Technomathematicians	GÜ 1	Electrical Engineering II for Technomathematicians	GÜ 1								
26	Electrical Engineering I for Technomathematicians		Electrical Engineering II for Technomathematicians									
27	<b>Mechanics for Technomathematicians (part 1)</b>		<b>Mechanics for Technomathematicians (part 2)</b>									
28	Mechanics I for Technomathematicians	VL 2	Mechanics II for Technomathematicians	VL 2								
29	Mechanics I for Technomathematicians	GÜ 2	Mechanics II for Technomathematicians	GÜ 2								
30					<b>Proseminar Technomathematics</b>							
					Proseminar Mathematics	SE 2						

Nontechnical Complementary Courses for Bachelors (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.

