

# Course of Study Technomathematics (Study Cohort w21)

Sample course plan A 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	Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6
	Form Hrs/wk	Form Hrs/wk	Form Hrs/wk	Form Hrs/wk	Form Hrs/wk	Form Hrs/wk
1	<b>Analysis for Technomathematicians (part 1)</b>	<b>Analysis for Technomathematicians (part 2)</b>	<b>Higher Analysis</b>	<b>Foundations of Management</b>	<b>Seminar Technomathematics</b>	<b>Numerical Algorithms in Structural Mechanics</b>
2	Analysis I for Technomathematicians VL 4	Analysis II for Technomathematicians VL 4	Higher Analysis VL 4	Introduction to Management VL 3	Seminar: Technomathematics SE 2	Numerical Algorithms in Structural Mechanics VL 2
3	Analysis I for Technomathematicians GÜ 2	Analysis II for Technomathematicians GÜ 2	Higher Analysis GÜ 2	Management Tutorial GÜ 2		Numerical Algorithms in Structural Mechanics GÜ 2
4						
5						
6					<b>Mathematical Image Processing</b>	
7					Mathematical Image Processing VL 3	
8					Mathematical Image Processing GÜ 1	
9				<b>Approximation and Stability</b>		<b>Boundary Element Methods</b>
10				Approximation and Stability VL 3		Boundary Element Methods VL 2
11				Approximation and Stability GÜ 1		Boundary Element Methods HÜ 2
12	<b>Linear Algebra for Technomathematicians (part 1)</b>	<b>Linear Algebra for Technomathematicians (part 2)</b>	<b>Numerical Mathematics</b>		<b>Approximation</b>	
13	Linear Algebra 1 for Technomathematicians VL 4	Linear Algebra 2 for Technomathematicians VL 4	Numerical Mathematics VL 4		Approximation VL 4	
14	Linear Algebra 1 for Technomathematicians GÜ 2	Linear Algebra 2 for Technomathematicians GÜ 2	Numerical Mathematics GÜ 2		Approximation GÜ 2	
15				<b>Numerical Treatment of Ordinary Differential Equations</b>		<b>Bachelor Thesis</b>
16				Numerical Treatment of Ordinary Differential Equations VL 2		
17				Numerical Treatment of Ordinary Differential Equations GÜ 2		
18						
19	<b>Mechanics I (Statics)</b>	<b>Programming Paradigms</b>	<b>Mathematical Stochastics</b>	<b>Software Engineering</b>		
20	Mechanics I VL 2	Programming Paradigms VL 2	Mathematical Stochastics VL 4	Software Engineering VL 2	<b>Functional Programming</b>	
21	Mechanics I GÜ 2	Programming Paradigms HÜ 1	Mathematical Stochastics GÜ 2	Software Engineering GÜ 2	Functional Programming HÜ 2	
22	Mechanics I HÜ 1	Programming Paradigms PR 2			Functional Programming GÜ 2	
23						
24						
25	<b>Procedural Programming for Computer Engineers</b>	<b>Introduction to Electrical Engineering (Technomathematics)</b>				
26	Procedural Programming for Computer Engineers VL 1	Introduction to Electrical Engineering VL 3				
27	Procedural Programming for Computer Engineers HÜ 1	Introduction to Electrical Engineering GÜ 2				
28	Procedural Programming for Computer Engineers PR 2					
29			<b>Proseminar Technomathematics</b>			
30			Proseminar Mathematics SE 2			

Non-technical 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.

