Course of Study Technomathematics (Study Cohort w22)

Sample course plan D Bachelor Technomathematics (TMBS)
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

Analysis for Technomathematicians (part 1)
Analysis I for Technomathematicians — VL — 4
Analysis I for Technomathematicians — GÜ — 2

Analysis for Technomathematicians (part 2)
Analysis II for Technomathematicians — VL — 4
Analysis II for Technomathematicians — GÜ — 2

Higher Analysis
Higher Analysis — VL — 4
Higher Analysis — GÜ — 2

Foundations of Management
Introduction to Management — VL — 3
Management Tutorial — GÜ — 2

Seminar Technomathematics
Seminar: Technomathematics — SE — 2

Numerical Algorithms in Structural Mechanics
Numerical Algorithms in Structural Mechanics — VL — 2
Numerical Algorithms in Structural Mechanics — GÜ — 2

Hierarchical Algorithms
Hierarchical Algorithms — VL — 2
Hierarchical Algorithms — GÜ — 2

Solvers for Sparse Linear Systems
Solvers for Sparse Linear Systems — VL — 2
Solvers for Sparse Linear Systems — GÜ — 2

Bachelor Thesis

Linear Algebra for Technomathematicians (part 1)
Linear Algebra 1 for Technomathematicians — VL — 4
Linear Algebra 1 for Technomathematicians — GÜ — 2

Linear Algebra for Technomathematicians (part 2)
Linear Algebra 2 for Technomathematicians — VL — 4
Linear Algebra 2 for Technomathematicians — GÜ — 2

Numerical Mathematics
Numerical Mathematics — VL — 4
Numerical Mathematics — GÜ — 2

Matrix Algorithms
Matrix Algorithms — VL — 2
Matrix Algorithms — GÜ — 2

Complex Analysis
Complex Analysis — VL — 4
Complex Analysis — GÜ — 2

Databases
Databases — VL — 3
Databases - Exercise — GÜ — 2

Procedural Programming for Computer Engineers
Procedural Programming for Computer Engineers — VL — 2
Procedural Programming for Computer Engineers — HÜ — 1
Procedural Programming for Computer Engineers — PR — 2

Programming Paradigms
Programming Paradigms — VL — 2
Programming Paradigms — HÜ — 1
Programming Paradigms — PR — 2

Mathematical Stochastics
Mathematical Stochastics — VL — 4
Mathematical Stochastics — GÜ — 2

Automata Theory and Formal Languages
Automata Theory and Formal Languages — VL — 2
Automata Theory and Formal Languages — GÜ — 2

Introduction to Mechanics (Technomathematics)
Introduction to Mechanics — VL — 3
Introduction to Mechanics — GÜ — 2

Introduction to Electrical Engineering (Technomathematics)
Introduction to Electrical Engineering — VL — 3
Introduction to Electrical Engineering — GÜ — 2

Proseminar Technomathematics
Proseminar Mathematics — SE — 2

Software Engineering
Software Engineering — VL — 2
Software Engineering — GÜ — 2

Engineering Mechanics II (Elastostatics)
Engineering Mechanics II — VL — 2
Engineering Mechanics II — GÜ — 2
Engineering Mechanics II — HÜ — 2

LP values: 1–39

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.