

## Mathematics courses taught in English

Sem.	Title	Course Type	Hours per week	ECTS Credits
WS	Computer algebra	Combined Course	3	4,50
WS	Numerical methods for partial differential equations	Lecture	4	6,00
WS	Information systems	Combined Course	2	3,00
WS	Computational Mathematics	Seminar	2	3,00
WS	Numerical methods for partial differential equations	Tutorial	2	3,00
WS	Special topics: Optimization methods for image processing	Lecture	2	3,00
WS	Programming project symbolic computation	Combined Course	2	3,00
WS	Computer-Algebra I	Seminar	2	3,00
WS	Algorithmic Combinatorics I	Seminar	2	3,00
WS	Analytical Combinatorics	Tutorial	1	1,50
WS	Analytical Combinatorics	Lecture	2	3,00
WS	Special topics: Homologic Algebra	Lecture	2	3,00
WS	Special topics: Computer Algebra Systems	Lecture	2	3,00
WS	Special topics: Symbolic Summation and Special Functions I	Lecture	2	3,00
WS	Special topics: Algebraic Topology	Lecture	2	3,00
WS	Lecture series symbolic computation	Lecture	1	1,50
WS	Logic programming	Combined Course	2	3,00
WS	Project seminar: Formal Methods I	Seminar	2	3,00
WS	Project seminar: Theorema: Automated Reasoning in N	Seminar	2	3,00
WS	Mathematical logic 1	Tutorial	1	1,50
WS	Design and analysis of algorithms	Lecture	2	3,00
WS	Decidable logical theories	Lecture	2	3,00
WS	Special topics: Fine-Grained Parallel Computing	Lecture	2	3,00
WS	Special topics: Automated Theorem Proving 2	Lecture	2	3,00
WS	Special topics: Introduction into Multicore Programming	Lecture	2	3,00
WS	Special topics: Fixpoint Theory of Functional Programs	Lecture	2	3,00
WS	Thinking, Speaking, Writing: Understanding and Creating Mathematical Proofs	Lecture	2	3,00
WS	Thinking, Speaking, Writing: Communication of Scientific Results	Lecture	2	3,00
WS	Special topics: Galois Theory	Tutorial	1	1,50
WS	Special topics: Galois Theory	Lecture	2	3,00
WS	Algebraic Spline Curves and Surfaces	Seminar	2	3,00
WS	Formal methods in software development	Combined Course	4	6,00

WS = Winter Semester (October - January), SS = Summer Semester (March - June)

<b>Sem.</b>	<b>Title</b>	<b>Course Type</b>	<b>Hours per week</b>	<b>ECTS Credits</b>
WS	Mathematical logic 1	Lecture	4	6,00
SS	Special Functions II	Tutorial	1	1,50
SS	Dynamical systems and chaos	Tutorial	1	1,50
SS	Fast solvers	Tutorial	1	1,50
SS	Numerical methods for elliptic equations	Tutorial	2	3,00
SS	Numerical methods in continuum mechanics 1	Tutorial	1	1,50
SS	Fast solvers	Lecture	2	3,00
SS	Programming in Mathematica	Combined Course	2	3,00
SS	Programming project symbolic computation	Combined Course	2	3,00
SS	Computer Algebra II	Seminar	2	3,00
SS	Algorithmic Combinatorics II	Seminar	2	3,00
SS	Seminar	Seminar	2	3,00
SS	Algorithmic Combinatorics	Tutorial	1	1,50
SS	Commutative algebra and algebraic geometry	Tutorial	1	1,50
SS	Special topics: Computer Algebra II: Groebner Bases	Lecture	2	3,00
SS	Special topics: Symbolische Lineare Algebra	Lecture	2	3,00
SS	Special topics: Orthogonale Polynome und Symbolic Computation	Lecture	2	3,00
SS	Special topics: Symbolic Summation and Special Functions II	Lecture	2	3,00
SS	Lecture series symbolic computation	Lecture	1	1,50
SS	Functional programming	Combined Course	2	3,00
SS	Mathematical Theory Exp	Seminar	2	3,00
SS	Set Theory and Logical Foundations II	Seminar	2	3,00
SS	Formal semantics of programming languages	Lecture	2	3,00
SS	Rewriting in computer science and logic	Lecture	2	3,00
SS	Automated Reasoning Systems	Lecture	2	3,00
SS	Formal Models of Parallel and Distributed Systems	Lecture	2	3,00
SS	Formal Languages and Formal Grammars (Part I)	Lecture	2	3,00
SS	Algebraic Spline Curves and Surfaces	Seminar	2	3,00
SS	Dynamical systems and chaos	Lecture	2	3,00
SS	Numerical methods for elliptic equations	Lecture	4	6,00
SS	Numerical methods in continuum mechanics 1	Lecture	2	3,00
SS	Algorithmic combinatorics	Lecture	2	3,00
SS	Commutative algebra and algebraic geometry	Lecture	4	6,00

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