

Module title		Abbreviation
Mathematics 1 for students in Computer Science		10-M-INF1-152-m01
Module coordinator		Module offered by
Dean of Studies Mathematik (Mathematics)		Institute of Mathematics
ECTS	Method of grading	Only after succ. compl. of module(s)
10	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	undergraduate	--
Contents		
Propositional logic, set theory, proof techniques, relations; sequences, limits and lambda-symbols; the ring of integers; elementary group theory; residue class rings; basics in linear algebra, linear maps and matrix calculus, systems of linear equations.		
Intended learning outcomes		
The student gets acquainted with fundamental concepts and methods of advanced mathematics. He/She learns to apply these methods to problems in natural and engineering sciences, in particular in computer science, and is able to interpret the results.		
Courses (type, number of weekly contact hours, language – if other than German)		
V (4) + Ü (2) Module taught in: Ü: German or English		
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
a) written examination (approx. 90 to 180 minutes, usually chosen) or b) oral examination of one candidate each (15 to 30 minutes) or c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate) Language of assessment: German and/or English creditable for bonus		
Allocation of places		
--		
Additional information		
--		
Workload		
300 h		
Teaching cycle		
--		
Referred to in LPO I (examination regulations for teaching-degree programmes)		
--		
Module appears in		
Bachelor' degree (1 major) Computer Science (2015) Bachelor' degree (1 major) Computer Science (2017) Bachelor' degree (1 major) Computer Science (2019) Bachelor' degree (1 major) Computer Science und Sustainability (2021) exchange program Mathematics (2023)		