

Optimization

Courses	Modules and ECTS			
	Module 1: Algorithms and complexity	Module 2: Knowledge representation and artificial intelligence	Module 3: Logic, mathematics and theoretical computer science	Module 4: Programming languages and verification
Algorithms in Graph Theory	3			
Approximation Algorithms	3			
Complexity Theory	3			
Fixed Parameter Algorithms and Complexity	3			
Heuristic Optimization Techniques	3			
Mathematical Programming	3			
Modeling and Solving Constrained Optimization Problems	3			
Networks: Design and Analysis	3			
Optimization in Transport and Logistics	3			
Parallel Algorithms	3			
Structural Decompositions and Algorithms	3			
Problem Solving and Search in Artificial Intelligence		3		
Machine Learning		4.5		
SAT Solving and Extensions		3		
Self-Organizing Systems		4.5		
Seminar in Algorithms	3			
Total ECTS=48	33	15		