

Master Computational Science - Application Domains 2026 - 2027											
Application domain	Semester 1					Semester 2					
	block 1		block 2		block 3	block 4		block 5		block 6	
	September	October	November	December	January	February	March	April	May	June	
Core Computational Science and AI/ML	Machine Learning 1 (UvA) 6EC						Experimental Design and Data Analysis (VU) 6EC				Machine Learning for the Quantified Self (VU) 6EC
											Agent-based Modelling (UvA) 6 EC
Computational Finance / Economics <i>Drona Kandhai</i>			Complex Economic Dynamics (UvA) 5EC			Scientific Computing (UvA) 6 EC					
			Stochastic Simulation (UvA) 6EC			Computational Finance (UvA) 6EC					
	Stochastic Processes for Finance (UvA) 6EC										
Computational Biology <i>Sven Karbach</i>	Bioinformatics Project (UvA) 6EC		Algorithms in Sequence Analysis (VU) 6EC				Computational Biology (UvA) 6EC		Bioinformatics Project(UvA) 6EC		
	Fundamentals of Bioinformatics (VU) 6EC								Bioinformatics for Translational Medicine (VU) 6EC		
Computational Biomedicine <i>Gábor Závodszy</i>	From Physics to Physiology (VU) 6EC								Biomolecular Simulations (UvA) 6EC		
Computational Chemistry and Physics <i>Edan Lerner and Peter Bolhuis</i>	Non-equilibrium Statistical Physics (UvA) 3EC		Statistical Theory of Complex Molecular Systems (UvA) 6EC		Understanding Molecular Simulation (UvA) 6EC			Biomolecular Simulations (UvA) 6EC			
	Physics of Complex Systems: Dynamics and Chaos (UvA) 3EC										
High Performance Computing <i>Francesc Verdugo Rojano</i>	Programming Large-scale Parallel Systems (VU) 6EC		Distributed Systems (VU) 6EC		High Performance Computing and Big Data (UvA) 6 EC			Accelerator-Centric Computing Ecosystems (VU) 6 EC			
					Parallel Programming Practical (VU) 6EC						
Computational Social Science <i>Vitor Vasconcelos, Debraj Roy</i>			Computational Social Choice (UvA) 6EC					Game Theory (UvA) 6 EC			
			Stochastic Simulation (UvA) 6EC					Theory of Complex Systems (UvA) 6 EC			
Sci. Computing / Numerical Math <i>Daan Crommelin</i>	Parallel Algorithms (UvA)** 8EC					Numerical Methods for Time-Dependent Partial Differential Equations (UvA)** 8 EC					
						Scientific Computing (UvA) 6EC					
Complex Systems <i>Rick Quax</i>	Physics of Complex Systems: Dynamics and Chaos (UvA) 3EC		Stochastic Simulation (UvA) 6EC					Theory of Complex Systems (UvA) 6EC			