Curriculum Bachelor Data Science & Artificial Intelligence (DSAI) - LIACS - Leiden University - 2025-2026

dd 19-12-2023

Skills/Research		Programming/Software	Computer Science Core	AI & Data Science	Cognition & Interaction	Mathematics
Year 1	Semester 1	**Introduction to Programming**	**Essentials of Computer Systems**	**Foundations of Computer Science**	**Studying and Presenting**	**Calculus 1**
					Oriëntation AI	**Linear Algebra 1**
	Semester 2	**Algorithms & Data Structures**	**Databases**	**Logic 1**	**Introduction to Cognitive Science**	**Linear Algebra 2**
				Probability Theory		**Calculus 2**
Year 2	Semester 1	**Software Development**	**Automata Theory**	**Symbolic AI**	**Human-Agent Interaction**	**Statistics**
	Semester 2	**Security**	**Neural Computing**	**Reinforcement Learning**	**Cognition & Computation**	**Machine Learning**
					Research Methods in AI	
Year 3	Semester 1	Video Game Making	Generative AI	Human Computer Interaction and Information Visualization	Cognitive Neuroscience	Natural Language Processing
		Concepts of Programming Languages	Computer Vision	Natural Computing	Cognitive Modelling	Cognitive Robotics
	Semester 2			Logic 2	Data Science	**30 ECTS Minor and 6 ECTS Electives or 36 ECTS Electives**
		Software Engineering	Program Correctness	**Bachelorproject**		**AI & Ethics**
Extra-curricular		AI & Robotics Challenge				

N.B.: Bold courses are mandatory