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Manifesto Laurea Magistrale in Artificial Intelligence System /Master's Degree in Artificial Intelligence Systems - a.a. 2024-25										
AD Code ESSE3	CORSO	SSD ACADEMIC DISCIPLINE	CFU CREDITS	TAF TRAINING ACTIVITY	ANNO YEAR	SEMESTRE SEMESTER	CREDITI DA SCEGLIERE CREDITS TO CHOOSE	TE NOTES	Docente TITOLARE COGNOME PROFESSOR	Docente TITOLARE NOME
Curricula: Methodologies and Applications, AI and Innovation, Systems, Neurocognitive Architectures										
Corsi obbligatori/Mandatory courses							48			
145856	Fundamentals of Artificial Intelligence	ING-INF/05	12	Car.	1	1			Sebastiani	Roberto
145857	Machine Learning - Module I	ING-INF/05	12	Car.	1	1			Melgani	Farid
	Machine Learning - Module II				1	2			Ricci	Elisa
145858	Signal, Image and Video	ING-INF/03	6	Aff.	1	1			Rosani	Andrea
145860	Law and Ethics in Artificial Intelligence	IUS/21	6	Aff.	1	1			Casonato Penasa	Carlo Simone
145861	Artificial and biological neural systems	ING-INF/05	6	Car.	1	2			Hasson	Uri
145859	Natural Language Understanding	ING-INF/05	6	Car.	1	2			Riccardi	Giuseppe
Depth requirement (for all Curricula except Neurocognitive)							12			
145863	Automated Reasoning	ING-INF/05	6	Car.	1	2			Sebastiani	Roberto
145866	Introduction to Robotics	ING-INF/04	6	Car.	1	2			Saveriano	Matteo
145867	Autonomous Software Agents	ING-INF/05	6	Car.	1	2			Giorgini	Paolo
145763	Bio-Inspired Artificial Intelligence	ING-INF/05	6	Car.	2	1			Iacca	Giovanni
145862	Automated Planning: Theory and Practice	ING-INF/05	6	Car.	2	1			Roveri	Marco
145864	Human-Machine Dialogue	ING-INF/05	6	Car.	2	1			Riccardi	Giuseppe
A - Curriculum Methodologies and Applications										
Choose one among the following paths: Computer Vision, Methodologies, Intelligent Robots or Humans and AI (the latest is available only for 2024-25 and subsequent cohorts)							18			
Path Computer Vision										
140266	Computer Vision	ING-INF/03	6	Aff.	1	2			Conci	Nicola
145869	Advanced Computer Vision	ING-INF/05	6	Car.	2	1			Ricci	Elisa
145870	Trends and Applications of Computer Vision	ING-INF/05	6	Car.	2	1			Mancini	Massimiliano



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Path Methodologies										
145871	Advanced Topics in Machine Learning and Optimization	MAT/09	6	Aff.	2	1			Passerini Teso	Andrea Stefano
Other 2 courses among {Depth courses, Advanced Computer Vision}		ING-INF/05 ING-INF/04	12	Car.	1-2	2-1				
Path Intelligent Robots										
145872	Distributed Robot Perception	ING-INF/07	6	Aff.	2	1			Fontanelli	Daniele
146216	Optimisation and Learning for Robot Control	ING-INF/04	6	Car.	2	1			Del Prete	Andrea
145874	Robot Planning and its application	ING-INF/05	6	Car.	2	1			Palopoli	Luigi
Path Humans and AI - Il path è selezionabile solo dagli studenti della coorte 2024-25 e successive.										
145899	Studies on Human Behaviour	INF/01	6	Aff.	2	1			Bison	Ivano
146114	Knowledge Graph Engineering	ING-INF/05	6	Car.	2	1			Giunchiglia	Fausto
146307	Human-Centric AI (sarà attivato dal 2025-26)	ING-INF/05	6	Car.	2	1			Giunchiglia	Fausto
146155	Advanced HCI	ING-INF/05	6	Car.	2	1			Varni	Giovanna Paola
Free-choice courses (see list below)							12			
145884	Tesi / Thesis						24			
145885	Tirocini formativi e di orientamento						6			
						TOT	120			
B - Curriculum AI and Innovation										
Path AI and Innovation							6			
145881	AI and Innovation	ING-INF/05	6	Car.	2	1			Formentini	Marco
12 Crediti a scelta nel seguente gruppo							12			
145636	Business Development Laboratory	SECS-P/08	6	Aff.	1	2			Formentini	Marco



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145936	Innovation and Entrepreneurship Basic	SECS-P/10	6	Aff.	2	1			Angeli	Lorenzo
146077	AI for finance (tace nel 24-25/ The course will not be offered in 24-25)	SECS-P/11	6	Aff.	1	2			Tace nel 2024-25	
	Free-choice courses (see list below)						12			
145884	Tesi / Thesis						24			
145885	Tirocini formativi e di orientamento						6			
C - Curriculum Systems										
	Path AI Systems for Environment and Sustainability						18			
146217	Software Development for Collaborative Robotics	ING-INF/05	6	Car.	2	1			Palopoli	Luigi
146303	Sensing Technologies and Data Processing (ex 145883 Sensing and Radar Technologies)	ING-INF/03	6	Aff.	2	1			Bruzzone	Lorenzo
146218	AI for Food Quality Control	ING-INF/03	6	Aff.	2	1			Melgani	Farid
	Free-choice courses (see list below)						12			
145884	Tesi / Thesis						24			
145885	Tirocini formativi e di orientamento						6			
						TOT	120			
D - Curriculum Neurocognitive Architectures										
	Track Neurocognitive Architecture						30			
146121	Foundations of Cognitive Psychology and Neuroscience	ING-INF/05	9	Car.	2	1		*	Bottini	Roberto
146078	Grounded Language Processing	ING-INF/05	9	Car.	2	1			Bernardi	Raffaella
154152	Introduction to Human Language	L-LIN/01	6	Aff.	2	1		**	Zamparelli	Roberto
154108	Language and Social Cognition	M PSI/02	6	Aff.	2	1			Hasson	Uri
* Cambio di denominazione del corso, fino alla coorte 2022-23 'Understanding Cognitive Psychology 154115'/Up to 2022-23 the course was called 'Understanding Cognitive Psychology 154115' ** Cambio di denominazione del corso, fino alla coorte 2022-23 'Intro to Human Language 154036'/Up to 2022-23 the course was called 'Intro to Human Language 154036'										



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	Free-choice courses (see list below)						12			
145884	Tesi / Thesis						24			
145885	Tirocini formativi e di orientamento						6			
						TOT	120			
Free-choice courses										
Students are encouraged to choose firstly among the courses of the Path(s) that have not been selected in their study plan, secondly from the list below. These courses are automatically approved.										
145091	Technical Writing	L- LIN /12	6	Scelta	1	1-2		*	Centro Linguistico di Ateneo	
146102	Italian Exam for International Students		6	Scelta	1	1-2		**	Centro Linguistico di Ateneo	
145875	Modeling and simulation of mechatronic systems	ING-IND/13	6	Scelta	1	2			Biral	Francesco
145865	Optimization techniques	INF/01	6	Scelta	1	2			Chittaro	Francesca
146079	Formal Verification	ING-INF/05	6	Scelta	1	2		***	Sebastiani	Roberto
145774	Automatic Control	ING-INF/04	6	Scelta	1	2			Zaccarian	Luca
146120	GPU computing	INF/01	6	Scelta	1	2			Vella	Flavio
146200	Digital Epidemiology	ING-INF/05	6	Scelta	1	2			Tizzoni	Michele
146170	Applied Natural Language Processing	ING-INF/05	6	Scelta	1	2			Staiano	Jacopo
146321	Knowledge Discovery and Pattern Extraction	INF/01	6	Scelta	1	2			Casati	Fabio
146322	Designing Large Scale AI Systems	INF/01	6	Scelta	1-2	2			Casati	Fabio
146114	Knowledge Graph Engineering	ING-INF/05	6	Scelta	2	1			Giunchiglia	Fausto
145899	Studies on human behaviour	SPS/07	6	Scelta	2	1			Bison	Ivano
146308	Process Mining and Management	ING-INF/05	6	Scelta	2	1			Di Francescomarino	Chiara
145972	High-Performance Computing for Data Science	ING-INF/05	6	Scelta	2	1			Fiore	Sandro
145801	Neuroimaging for Data Science	M-PSI/02	6	Scelta	2	1			Baldauf	Daniel
145762	Ultrasound Technologies for Medical Applications	ING-INF/03	6	Scelta	2	1			Demi	Libertario



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155020	Multisensory Interactive Systems	ING-INF/05	6	Scelta	2	1			Turchet	Luca
140466	Computational methods for mechatronics	MAT/08	6	Scelta	2	1			Bertolazzi	Enrico
146155	Advanced HCI	ING-INF/05	6	Scelta	2	1			Varni	Giovanna Paola
146217	Software Development for Collaborative Robotics	ING-INF/05	6	Scelta	2	1			Palopoli	Luigi
145779	Dynamics and control of vehicles and robots	ING-IND/13	6	Scelta	2	2			Biral	Francesco
145877	Logical Structures of Natural Language	M-FIL/05	6	Scelta	2	2			Zamparelli	Roberto
145289	Research Project	INF/01 ING-INF/05	12	Scelta	1-2	1-2			DISI Faculty	
145301	Project course	INF/01 ING-INF/05	6	Scelta	1-2	1-2			DISI Faculty	
146317	Soft Skills Developments	ING-INF/05	6	Scelta	1-2	2			D'Andrea	Vincenzo
145820	Laboratory of Computer Science Education - tace nel 2024-25	INF/01	6	Scelta	1	2		****	Montresor	Alberto

(*) 145091 Foreign students cannot take Technical Writing along with '146102 Italian Exam for International Students', except for the case of supernumerary credits.

(**) 146102 Italian Exam for International Students - This course is reserved to foreign students only.

Please note that foreign students lacking a sufficient level of knowledge of the Italian language (i.e. who cannot provide a CLA-recognized Italian Language certificate) will be required to follow the Italian language course and include 146102 Italian Exam for International Students, offered by CLA (University Language Center) in their study plan.

(***) 146079 Formal Verification: requires as prerequisite 145863 Automated Reasoning (aka Formal Methods Module I)

(****) 145820 Laboratory of Computer Science Education - il corso tace nel 24-25/The course is not active in a.y. 2024-25.

Safety courses

The on-line courses "Health and Safety in the workplace General Risk training" (4 hours) and "Health and Safety in the workplace Specific risk training (Low Risk)" (4 hours) are mandatory for all the students attending courses held in computer and/or teaching labs. The courses are available through Didattica online.

Some of the courses may have additional requirements in terms of knowledge on the safety regulations. Such requirements are explicitly mentioned in the Syllabus of the courses and can be covered through specific safety courses (medium risk) offered by the University.



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<https://www.unitn.it/it/studiare/iscrizioni/documenti-e-attestazioni/formazione-sicurezza-studenti-e-studentesse>

RECAP TABLE

A - Methodologies and Applications		B - AI and Innovation	C - Systems	D - Neurocognitive Architectures
48 CFU Mandatory courses		48 CFU Mandatory courses	48 CFU Mandatory courses	48 CFU Mandatory courses
12 CFU Depth requirement		12 CFU Depth requirement	12 CFU Depth requirement	30 CFU Track Neurocognitive Architectures
18 CFU Path	Computer Vision Methodologies Intelligent Robots Humans and AI	18 CFU Path AI and Innovation	18 CFU Path AI Systems for Environment and Sustainability	
choose among				
12 CFU Free-choice courses		12 CFU Free-choice courses	12 CFU Free-choice courses	
24 CFU Thesis		24 CFU Thesis	24 CFU Thesis	24 CFU Thesis
6 CFU Internship		6 CFU Internship	6 CFU Internship	6 CFU Internship
120 CFU		120 CFU	120 CFU	120 CFU