Manifesto Laurea Magistrale in Artificial Intelligence System /Master's Degree in Artificial Intelligence Systems - a.a. 2021-22

AD *Code ESSE3*	CORSO *COURSES*	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			De Natale	Francesco
145859	Natural Language Understanding	ING-INF/05	6	Car.	1	2			Riccardi	Giuseppe
145860	Law and Ethics in Artificial Intelligence	IUS/21	6	Aff.	1	1			Casonato	Carlo
145861	Artificial and biological neural systems	ING-INF/05	6	Car.	1	2			Hasson	Uri
Depth requirement (for all Curricula except Neurocognitive)							**12**			
145862	Automated Planning: Theory and Practice	ING-INF/05	6	Car.	2	1			Roveri	Marco
145863	Automated Reasoning	ING-INF/05	6	Car.	1	2			Sebastiani	Roberto
145864	Human-Machine Dialogue	ING-INF/05	6	Car.	2	1			Riccardi	Giuseppe
145763	Bio-Inspired Artificial Intelligence	ING-INF/05	6	Car.	2	2			Iacca	Giovanni
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
A - Curriculum *Methodologies and Applications*										
Choose one among the following paths (Computer Vision, Methodologies, Intelligent Robots)							**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			Arrigoni	Federica
									Pasquini	Cecilia

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Path *Methodologies*										
145871	Advanced Topics in Machine Learning and Optimization	MAT/09	6	Aff.	2	1			Passerini	Andrea
Other 2 courses among {Depth courses, Advanced Computer Vision}		ING-INF/05	12	Car.	1-2	2-1				
		ING-INF/04								
Path *Intelligent Robots*										
145872	Distributed Robot Perception	ING-INF/07	6	Aff.	2	1			Fontanelli	Daniele
145873	Optimisation Based 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
	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*							**18**			
145636	Business Development Laboratory	SECS-P/08	6	Aff.	1	2			Formentini	Marco
145881	AI and Innovation	ING-INF/05	6	Car.	2	1			Formentini	Marco
145936	Innovation and Entrepreneurship Basic	SECS-P/10	6	Aff.	2	1			Stoycheva	Milena
	Free-choice courses (see list below)						**12**			
145884	**Tesi / Thesis**						**24**			
145885	**Tirocini formativi e di orientamento**						**6**			
C - Curriculum *Systems*										
Path *Systems*							**18**			
146076	Medical Imaging Diagnostic	ING-INF/05	6	Car.	2	1			Demi	Libertario

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145613	Imaging and diagnostic techniques	ING-INF/02	6	Aff.	2	1			Oliveri	Giacomo
146077	AI for finance	SECS-P/11	6	Aff.	1	2			Chatterjee	Ujjal Kanti
145883	Sensing and Radar Technologies	ING-INF/03	6	Aff.	2	1			Bruzzone	Lorenzo
	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**			
154115	Understanding 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
154036	Intro 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
	Free-choice courses (see list below)						**12**			
145884	**Tesi / Thesis**						**24**			
145885	**Tirocini formativi e di orientamento**						**6**			
						TOT	**120**			
Free-choice courses										
145779	Dynamics and control of vehicles and robots	ING-IND/13	6	Scelta	2	2			Biral	Francesco
140466	Computational methods for mechatronics	MAT/08	6	Scelta	2	1			Bertolazzi	Enrico
145875	Modeling and simulation of mechatronic systems	ING IND/13	6	Scelta	1	2			Biral	Francesco
155020	Multisensory Interactive Systems	ING-INF/05	6	Scelta	2	1			Turchet	Luca
146079	Formal Verification	ING-INF/05	6	Scelta	1	2		*	Sebastiani	Roberto
145774	Automatic Control	ING-INF/04	6	Scelta	1	2			Zaccarian	Luca
154129	Language in the brain	M-PSI/02	6	Scelta	2	1			Papagno	Costanza
154107	Neuroimaging for Data Science	M-PSI/02	6	Scelta	2	1			Tettamanti	Marco

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145877	Logical Structures in Natural Language	M-FIL/05	6	Scelta	2	2			Zamparelli	Roberto
145453	Data Mining	ING-INF/05	6	Scelta	2	1			Velegrakis	Yannis
145762	Ultrasound Technologies for Medical Applications	ING-INF/03	6	Scelta	1-2	1			Demi	Libertario
145613	Imaging and diagnostic techniques	ING-INF/02	6	Scelta	2	1			Rocca	Paolo
145972	High-Performance Computing for Data Science	ING-INF/05	6	Scelta	1-(2)	1			Fiore	Sandro
145091	Technical Writing	L- LIN /12	6	Scelta	1	1-2			Centro Linguistico di Ateneo	
145879	Italian Language		6	Scelta	1	1-2		**	Centro Linguistico di Ateneo	

(*)146079 Formal Verification: 145876 Model Checking has changed its name into 146079 Formal Verification (aka Formal Methods Module II). It requires as prerequisite 145863 Automated Reasoning (aka Formal Methods Module I)

(**) 145879 Italian Language - This course is reserved to foreign students only.
Please note that foreign students lacking a sufficient level of knowledge of the Italian language will be required to include 145879 - Italian Language, offered by CLA (University Language Center) in their study plan.

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.

RECAP TABLE

A - Methodologies and Applications		B - AI for 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	
18 CFU Path	Computer Vision	18 CFU Path AI and Innovation	18 CFU Path Systems	30 CFU Track Neurocognitive Architectures
	Methodologies			
choose among	Intelligent Robots			
12 CFU Free-choice courses		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