



**UNIVERSITÀ
DI TRENTO**

Dipartimento di
Ingegneria e Scienza dell'Informazione

Manifesto Laurea Magistrale in Artificial Intelligence System /Master's Degree in Artificial Intelligence Systems - a.a. 2022-23

AD Code ESSE3	CORSO COURSES	SSD ACADEMIC DISCIPLINE	CFU CREDITS	TAF TRAINING ACTIVITY	ANNO YEAR	SEMESTRE SEMESTER	CREDITI DA SCEGLIERE CREDITS TO CHOOSE	NOTE 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	
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	
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	
145763	Bio-Inspired Artificial Intelligence	ING-INF/05	6 Car.			1	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	
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)							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		Sebe	Niculae	
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 ING-INF/04	12 Car.			1-2	2-1				
Path Intelligent Robots											

AD <i>Code ESSE3</i>	CORSO <i>COURSES</i>	SSD <i>ACADEMIC DISCIPLINE</i>	CFU <i>CREDITS</i>	TAF <i>TRAINING ACTIVITY</i>	ANNO <i>YEAR</i>	SEMESTRE <i>SEMESTER</i>	CREDITI DA SCEGLIERE <i>CREDITS TO CHOOSE</i>	NOTE <i>NOTES</i>	Docente TITOLARE COGNOME <i>PROFESSOR</i>	Docente TITOLARE NOME
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 <i>AI and Innovation</i>										
Path <i>AI and Innovation</i>										
							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			Angeli	Lorenzo
	Free-choice courses (see list below)						12			
145884	Tesi / Thesis						24			
145885	Tirocini formativi e di orientamento						6			
C - Curriculum <i>Systems</i>										
Path <i>Systems</i>										
							18			
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			Bruzzzone	Lorenzo
146076	Medical Imaging Diagnostic	ING-INF/05	6	Car.	2	1			Demi	Libertario
	Free-choice courses (see list below)						12			
145884	Tesi / Thesis						24			
145885	Tirocini formativi e di orientamento						6			
						TOT	120			
D - Curriculum <i>Neurocognitive Architectures</i>										
Track <i>Neurocognitive Architecture</i>										
							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			

AD Code ESSE3	CORSO COURSES	SSD ACADEMIC DISCIPLINE	CFU CREDITS	TAF TRAINING ACTIVITY	ANNO YEAR	SEMESTRE SEMESTER	CREDITI DA SCEGLIERE CREDITS TO CHOOSE	NOTE NOTES	Docente TITOLARE COGNOME PROFESSOR	Docente TITOLARE NOME
Free-choice courses										
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	Car	2	1			Iacca	Giovanni
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
145820	Laboratory of Computer Science Education	INF/01	6	Scelta	1	2			Montresor	Alberto
145762	Ultrasound Technologies for Medical Applications	ING-INF/03	6	Scelta	2	1			Demi	Libertario
145972	High-Performance Computing for Data Science	ING-INF/05	6	Scelta	2	1			Fiore	Sandro
154107	Neuroimaging for Data Science	M-PSI/02	6	Scelta	2	1			Baldauf	Daniel
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
145613	Imaging and diagnostic techniques	ING-INF/02	6	Scelta	2	1			Oliveri	Giacomo
145779	Dynamics and control of vehicles and robots	ING-IND/13	6	Scelta	2	2			Biral	Francesco
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
146169	Digital Health and Computational Epidemiology	ING-INF/05	6	Scelta	1	2			Tizzoni	Michele
146170	Applied Natural Language Processing	ING-INF/05	6	Scelta	1	2			Staiano	Jacopo
145301	Project course	INF/01 ING-INF/05	6	Scelta	1-2	1-2			DISI Faculty	
(*)146079 Formal Verification: requires as prerequisite 145863 Automated Reasoning (aka Formal Methods Module I)										
(**) 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 attend the Italian language course and include 146102 Italian Exam for International Students, offered by CLA (University Language Center) in their study plan.										
(***) 145091 Foreign students cannot take Technical Writing along with '146102 Italian Exam for International Students', except for the case of supernumerary credits.										
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.										

AD <i>Code ESSE3</i>	CORSO <i>COURSES</i>	SSD <i>ACADEMIC DISCIPLINE</i>	CFU <i>CREDITS</i>	TAF <i>TRAINING ACTIVITY</i>	ANNO <i>YEAR</i>	SEMESTRE <i>SEMESTER</i>	CREDITI DA SCEGLIERE <i>CREDITS TO CHOOSE</i>	NOTE <i>NOTES</i>	Docente TITOLARE COGNOME <i>PROFESSOR</i>	Docente TITOLARE NOME
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		30 CFU Track Neurocognitive Architectures				
18 CFU Path choose among		18 CFU Path AI and Innovation		18 CFU Path Systems						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Computer Vision</td></tr> <tr><td>Methodologies</td></tr> <tr><td>Intelligent Robots</td></tr> </table>										
Computer Vision										
Methodologies										
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				