DIPARTIMENTO DI MATEMATICA

Corso di Laurea in Artificial intelligence (Classe L-31 - Classe di Laurea in Scienze e Tecnologie Informatiche)

PIANO DI STUDI PER GLI IMMATRICOLATI AL 3° ANNO (COORTE 2021-22) – D.M. 270/2004 ANNO ACCADEMICO 2023/2024

Matricola n. ………………….. Cognome e Nome ……………………….……………………..

1° anno – 60 CFU

Codice	Insegnamento	CFU	SSD	TAF/AMBITO
509477	Computer programming, algorithms and data structures	12	INF/01	BASE – FORMAZIONE INFORMATICA DI BASE
509478	Knowledge representation and reasoning	12		BASE – FORMAZIONE INFORMATICA DI BASE
	Knowledge representation and reasoning – mod. 1	6	INF/01	
	Knowledge representation and reasoning – mod. 2	6	INF/01	CARATT. – DISCIPLINE INFORMATICHE
509481	Calculus	12	MAT/05	BASE – FORMAZIONE MATEMATICO FISICA
509482	Theoretical and computational linear algebra	6	MAT/08	CARATT. – DISCIPLINE INFORMATICHE

Codice	Insegnamento	CFU	SSD	TAF/AMBITO
509483	Computational logic	6	MAT/01	CARATT. – DISCIPLINE INFORMATICHE
509484	Experimental physics for AI	6	FIS/01	CARATT. – DISCIPLINE INFORMATICHE
509485	Cognitive psychology	6	M-PSI/01	AFFINE

2° anno – 60 CFU

Codice	Insegnamento	CFU	SSD	TAF/AMBITO
509486	Machine learning, artificial neural networks and deep learning	12	INF/01	CARATT. – DISCIPLINE INFORMATICHE
509487	Fuzzy systems and evolutionary computing	6	INF/01	CARATT. – DISCIPLINE INFORMATICHE
509488	Text mining and natural language processing	6	INF/01	CARATT. – DISCIPLINE INFORMATICHE
509489	Probability and statistical inference Probability and statistical inference – mod. 1 Probability and statistical inference – mod. 2	12 6 6	MAT/06, SECS-S/01	CARATT. – DISCIPLINE INFORMATICHE
509492	Theoretical and quantum physics for AI	12	FIS/02	CARATT. – DISCIPLINE INFORMATICHE
509519	Ethics, law and AI	12	IUS/20	AFFINE

3° anno – 60 CFU

Codice	Insegnamento	CFU	SSD	TAF
509493	Statistical modelling	6	SECS-S/01	AFFINE
509494	Brain modelling	6	BIO/09	AFFINE
	Esami di indirizzo (vedere elenco AF sotto). 4 AF da 6 CFU ciascuna	24		AFFINE

	Esami a libera scelta	12		D
502815	STAGE **oppure** 3 Laboratori da 3 CFU (vedere elenco sotto) **oppure** 2 Laboratori da 3 CFU (vedere elenco sotto) + AF 509536 (ITALIAN LANGUAGE FOR FOREIGN STUDENTS) – 3 cfu	9		F - ALTRO
509535	Final exam	3		E – PROVA FINALE

Indirizzo 1: Data analysis, communication and marketing – 24 CFU di TAFAFFINE

Codice	Insegnamento	CFU	SSD
509495	Data mining and knowledge extraction	6	INF/01
509496	Information retrieval and recommender systems	6	INF/01
509497	Web and social networks search and analysis	6	INF/01
509498	Artificial intelligence for communication and marketing	6	INF/01

Indirizzo 2: Industrial Systems and Health-Care – 24 CFU di TAFAFFINE

Codice	Insegnamento	CFU	SSD
509499	Signal and image processing	6	
	Signal and image processing – mod.1	3	ING-INF/05
	Signal and image processing Mod. 2	3	ING-INF/03

509502	Process control, industrial automation and robotics	6	
	Process control, industrial automation and robotics . mod.1	3	ING- INF/04
	Process control, industrial automation and robotics – mod. 2	3	ING-IND/32
509505	Medical applications and health-care	6	
	Medical applications and health-care – mod. 1	3	ING-INF/06
	Medical applications and health-care – mod. 2	3	MED/26
509508	Human-system interaction	6	
	Human-system interaction – mod. 1	3	ING-INF/05
	Human-system interaction Mod. 2	3	M-PSI/01

Indirizzo 3: Brain, Cognition and Society - 24 CFU di TAFAFFINE

Codice	Insegnamento	CFU	SSD
509511	Logics for practical reasoning and AI	6	M-FIL/02
509512	Brain-inspired neural networks and neural architectures	6	
	Brain-inspired neural networks and neural architectures – mod.1	3	BIO/09 MED/26
	Brain-inspired neural networks and neural architectures – mod. 2	3	
509508	Human system interaction	6	ING-INF/05
	Human system interaction – mod. 1	3	
	Human system interaction – mod. 2	3	
			M-PSI/01
509515	Artificial intelligence and society	6	SPS/08

Indirizzo 4: Physics for AI : Environment, Health and Quantum Information - 24 CFU di TAFAFFINE

Codice	Insegnamento	CFU	SSD
509520	Experimental physics for AI 2	6	FIS/01
509516	Imaging and spectroscopy for environment and health	6	FIS/07
509517	Materials and platforms for artificial intelligence	6	FIS/03
509518	Mathematics for imaging and signal processing	6	FIS/02

ELENCO LABORATORI – 3 CFU – TAF F ALTRO

- LABORATORY OF MACHINE LEARNING 509521
- LABORATORY OF COMPUTATIONAL INTELLIGENCE 509522
- LABORATORY OF MACHINE LEARNING APPLIED TO PHYSICAL SYSTEMS 509524
- LABORATORY OF INDUSTRIAL APPLICATIONS 509527
- LABORATORY OF COGNITIVE AND BEHAVIOURAL MEASURES 509529
- LABORATORY OF NEURAL SIGNALS AND BRAIN-INSPIRED SYSTEMS 509530
- LABORATORY OF COMPLEX SYSTEMS 509532
- LABORATORY OF QUANTUM INFORMATION 509533
- LABORATORY OF PHYSICS SENSORS AND RELATED DATA ANALYSIS 509534
- LABORATORT OF MEDICAL DEVICES AND SYSTEMS 509528