



UNIVERSITÀ DI PAVIA

DIPARTIMENTO DI MATEMATICA

DEPARTMENT OF MATHEMATICS

Corso di Laurea in

Bachelor's Degree/ in

ARTIFICIAL INTELLIGENCE (Classe L-31)

PIANO DI STUDIO PER GLI ISCRITTI AL 3° ANNO - DM 270/'04 ANNO ACCADEMICO

2026/2027

STUDY PLAN FOR STUDENTS ENROLLED IN 3rd YEAR – DM 270/04 ACADEMIC YEAR 2026/2027

da compilare online (ad iscrizione effettuata) / To complete online (after enrollment)

dal / from..... al / to

La/il sottoscritta/o / The undersigned,

Matricola / Matriculation number

Cognome / Surname..... Nome / Name.....

Nato a / Born in (city) Prov. / State il / on

Residente in / Resident in (city)..... Prov / State

CAP / Postal code Via o Piazza / Street name

N. civico / number Tel. / Phone

Gli studenti che intendono effettuare scelte diverse che si discostano dal modello di piano di studi che segue presenteranno un piano di studi individuale (per il quale è prevista una marca da bollo da euro 16,00 che verrà generata dagli uffici). Maggiori informazioni sono disponibili sulla pagina dedicata <https://portale.unipv.it/it/didattica/corsi-di-laurea/studiare/piani-di-studio> nella sezione "Eccezioni: il piano cartaceo".

Students who want to make choices not provided by the following form should submit an individual study plan (in this case administrative offices will generate a fee of €16 for an extra revenue stamp). More information is available at the dedicated website page: <https://portale.unipv.it/it/didattica/corsi-di-laurea/studiare/piani-di-studio> in the section "Exceptions: Study plan submitted in paper form".

APPROVATO NELLA RIUNIONE DEL CONSIGLIO DIDATTICO/CONSIGLIO DI DIPARTIMENTO DEL / *Approved in the session of the Teaching Council/Department Council on*

SI DICHIARA LA CONFORMITA' DEL PIANO INDIVIDUALE ALL'ORDINAMENTO DIDATTICO DEL CORSO DI STUDIO IN RELAZIONE ALLA COORTE DI APPARTENENZA DELLO STUDENTE (SCHEDA RAD). / *It is declared that the individual plan follows the course regulations depending on the student's year of enrollment (RAD form).*

FIRMA DEL REFERENTE DEL CORSO DI LAUREA/ *Signature of the Program Coordinator*
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PRIMO ANNO 2024/2025 – 60 CFU
First Year 2024/2025 – 60 cfu

ATTIVITÀ FORMATIVA <i>Courses</i>	CFU <i>Cfu</i>	SETTORE SCIENTIFICO DISCIPLINARE <i>Scientific Disciplinary Sector</i>	NUOVO SETTORE SCIENTIFICO DISCIPLINARE <i>New Scientific Disciplinary Sector</i>	TAF / AMBITO <i>TAF / Teaching Field</i>	TIPO INSEGNAMENTO <i>Course Type</i>
509477 – Computer Programming, algorithms and data structures	12	INF/01	INFO-01/A	BASE – FORMAZIONE INFORMATICA DI BASE <i>Basic – Basic Computer Science</i>	OBBLIGATORIO <i>Compulsory</i>
509478 - Knowledge representation and reasoning Knowledge representation and reasoning – mod. 1	12 6	INF/01	INFO-01/A	BASE – FORMAZIONE INFORMATICA DI BASE <i>Basic – Basic Computer Science</i>	OBBLIGATORIO <i>Compulsory</i>
Knowledge representation and reasoning – mod. 2	6	INF/01	INFO-01/A	CARATT. – DISCIPLINE INFORMATICHE <i>Charact. – computer science</i>	
509481 – Calculus	12	MAT/05	MATH-03/A	BASE – FORMAZIONE MATEMATICO FISICA <i>Basic – Basic Mathematics And Physics Education</i>	OBBLIGATORIO <i>Compulsory</i>
509482 – Theoretical and computational linear algebra	6	MAT/08	MATH-05/A	CARATT. – DISCIPLINE INFORMATICHE <i>Charact. – computer science</i>	OBBLIGATORIO <i>Compulsory</i>
509483 – Computational logic	6	INF/01	INFO-01/A	CARATT. – DISCIPLINE INFORMATICHE <i>Charact. – computer science</i>	OBBLIGATORIO <i>Compulsory</i>
509484 – Experimental physics for AI	6	FIS/01	PHYS-01/A	BASE – FORMAZIONE MATEMATICO FISICA <i>Basic – Basic Mathematics And Physics Education</i>	OBBLIGATORIO <i>Compulsory</i>
509485 – Cognitive psychology	6	M-PSI/01	PSIC-01/A	AFFINE <i>Related</i>	OBBLIGATORIO <i>Compulsory</i>

SECONDO ANNO 2025/2026 – 60 CFU

Second Year 2025/2026 – 60 cfu

ATTIVITÀ FORMATIVA <i>Courses</i>	CFU <i>Cfu</i>	SETTORE SCIENTIFICO DISCIPLINARE <i>Scientific Disciplinary Sector</i>	NUOVO SETTORE SCIENTIFICO DISCIPLINARE <i>New Scientific Disciplinary Sector</i>	TAF / AMBITO <i>TAF / Teaching Field</i>	TIPO INSEGNAMENTO <i>Course Type</i>
509486 – Machine learning, artificial neural networks and deep learning	12	INF/01	INFO-01/A	CARATT. – DISCIPLINE INFORMATICHE <i>Charact. – computer science</i>	OBBLIGATORIO <i>Compulsory</i>
509487 – Fuzzy systems and evolutionary computing	6	INF/01	INFO-01/A	CARATT. – DISCIPLINE INFORMATICHE <i>Charact. – computer science</i>	OBBLIGATORIO <i>Compulsory</i>
509488 – Text mining and natural language processing	6	INF/01	INFO-01/A	CARATT. – DISCIPLINE INFORMATICHE <i>Charact. – computer science</i>	OBBLIGATORIO <i>Compulsory</i>
510109 – Probability and statistical inference	12	MAT/06	MATH-03/B	CARATT. – DISCIPLINE INFORMATICHE <i>Charact. – computer science</i>	OBBLIGATORIO <i>Compulsory</i>
509492 – Theoretical and quantum physics for AI	12	FIS/02	PHYS-02/A	CARATT. – DISCIPLINE INFORMATICHE <i>Charact. – computer science</i>	OBBLIGATORIO <i>Compulsory</i>
509519 – Ethics, law and AI	12	IUS/20	GIUR-17/A	AFFINE <i>Related</i>	OBBLIGATORIO <i>Compulsory</i>

TERZO ANNO 2026/2027 – 60 CFU
Third Year 2026/2027 – 60 cfu

ATTIVITÀ FORMATIVA <i>Courses</i>	CFU <i>Cfu</i>	SETTORE SCIENTIFICO DISCIPLINARE <i>Scientific Disciplinary Sector</i>	NUOVO SETTORE SCIENTIFICO DISCIPLINARE <i>New Scientific Disciplinary Sector</i>	TAF / AMBITO <i>TAF / Teaching Field</i>	TIPO INSEGNAMENTO <i>Course Type</i>
509493 – Statistical modelling	6	SECS-S/01	STAT-01/A	AFFINE <i>Related</i>	OBBLIGATORIO <i>Compulsory</i>
509494 – Brain modelling	6	ING-INF/06	IBIO-01/A	AFFINE <i>Related</i>	OBBLIGATORIO <i>Compulsory</i>
Esami di indirizzo (vedere elenco AF sotto). 4 AF da 6 CFU ciascuna <i>Track courses (see below). 4 activities of 6 CFU each</i>	24			AFFINE <i>Related</i>	
Attività a scelta tra: <i>Activities chosen among:</i> 502815 – Stage (9 CFU) <i>oppure/or</i> 3 Laboratories of 3 CFU (see the list below) <i>oppure/or</i> 2 Laboratories of 3 CFU (see the list below) + AF 509536 (ITALIAN LANGUAGE FOR FOREIGN STUDENTS) – 3 cfu <i>oppure/or</i> 511160 STAGE (da 6 CFU) + 1 Laboratory of 3 CFU <i>oppure/or</i> 511160 - STAGE (da 6 CFU) + AF 509536 (ITALIAN LANGUAGE FOR FOREIGN STUDENTS) – 3 cfu	9			ALTRO <i>Other</i>	
Insegnamenti a scelta / Elective courses (12 CFU)				Altre attività <i>Other Activities</i>	A scelta dello studente <i>Optional Subjects</i>
500000 Prova Finale / <i>Final Exam (Thesis)</i>	X	PROFIN_S	PROFIN_S	Lingua / Prova Finale / Per la prova finale <i>Language / Final Exam / for the Final Exam</i>	

Indirizzo 1: Data analysis, communication and marketing – 24 CFU*Track 1: Data analysis, communication and marketing – 24 CFU*

ATTIVITÀ FORMATIVA <i>Courses</i>	CFU <i>Cfu</i>	SETTORE SCIENTIFICO DISCIPLINARE <i>Scientific Disciplinary Sector</i>	NUOVO SETTORE SCIENTIFICO DISCIPLINARE <i>New Scientific Disciplinary Sector</i>	TAF / AMBITO <i>TAF / Teaching Field</i>	TIPO INSEGNAMENTO <i>Course Type</i>
511276 - Data and Knowledge Bases	6	INF/01	INFO-01/A	AFFINE <i>Related</i>	
509496- Information retrieval and recommender systems	6	INF/01	INFO-01/A	AFFINE <i>Related</i>	
510638 - Web and Social Media Search and Analysis	6	INF/01	INFO-01/A	AFFINE <i>Related</i>	
509498 - Artificial intelligence for communication and marketing	6	INF/01	INFO-01/A	AFFINE <i>Related</i>	

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

Track 2: Industrial Systems and Health-Care – 24 CFU

ATTIVITÀ FORMATIVA <i>Courses</i>	CFU <i>Cfu</i>	SETTORE SCIENTIFICO DISCIPLINARE <i>Scientific Disciplinary Sector</i>	NUOVO SETTORE SCIENTIFICO DISCIPLINARE <i>New Scientific Disciplinary Sector</i>	TAF / AMBITO <i>TAF / Teaching Field</i>	TIPO INSEGNAMENTO <i>Course Type</i>
509499 - Signal and image processing <i>Signal and image processing – mod.1</i> <i>Signal and image processing – mod.2</i>	6 3 3	ING-INF/05 ING-INF/03	IINF-05/A IINF-03/A	AFFINE <i>Related</i> AFFINE <i>Related</i>	
510284 - Dynamical systems for industrial automation	6	ING-INF/04	IINF-04/A	AFFINE <i>Related</i>	
509505 - Medical applications and health-care <i>Medical applications and health-care – mod. 1</i> <i>Medical applications and health-care – mod. 2</i>	6 3 3	ING-INF/06 MED/26	IBIO-01/A MEDS-12/A	AFFINE <i>Related</i> AFFINE <i>Related</i>	
509508 - Human-system interaction <i>Human-system interaction – mod. 1</i> <i>Human-system interaction – mod. 2</i>	6 3 3	ING-INF/05 M-PSI/01	IINF-05/A PSIC-01/A	AFFINE <i>Related</i> AFFINE <i>Related</i>	

Indirizzo 3: Brain, Cognition and Society - 24 CFU*Track 3: Brain, Cognition and Society - 24 CFU*

ATTIVITÀ FORMATIVA <i>Courses</i>	CFU <i>Cfu</i>	SETTORE SCIENTIFICO DISCIPLINARE <i>Scientific Disciplinary Sector</i>	NUOVO SETTORE SCIENTIFICO DISCIPLINARE <i>New Scientific Disciplinary Sector</i>	TAF / AMBITO <i>TAF / Teaching Field</i>	TIPO INSEGNAMENTO <i>Course Type</i>
509511 - Logics for practical reasoning and AI	6	M-FIL/02	PHIL-02/A	AFFINE Related	
509512 - Brain-inspired neural networks and neural architectures <i>Brain-inspired neural networks and neural architectures – mod.1</i> <i>Brain-inspired neural networks and neural architectures – mod. 2</i>	6 3 3	BIO/09 MED/26	BIOS-06/A MEDS-12/A	AFFINE Related AFFINE Related	
509508 - Human-system interaction <i>Human-system interaction – mod. 1</i> <i>Human-system interaction – mod. 2</i>	6 3 3	ING-INF/05 M-PSI/01	IINF-05/A PSIC-01/A	AFFINE Related AFFINE Related	
509515 - Artificial intelligence and society	6	SPS/08	GSPS-06/A	AFFINE Related	

Indirizzo 4: Physics for AI : Environment, Health and Quantum Information - 24 CFU*Track 4: Physics for AI : Environment, Health and Quantum Information - 24 CFU*

ATTIVITÀ FORMATIVA <i>Courses</i>	CFU <i>Cfu</i>	SETTORE SCIENTIFICO DISCIPLINARE <i>Scientific Disciplinary Sector</i>	NUOVO SETTORE SCIENTIFICO DISCIPLINARE <i>New Scientific Disciplinary Sector</i>	TAF / AMBITO <i>TAF / Teaching Field</i>	TIPO INSEGNAMENTO <i>Course Type</i>
509520 - Experimental physics for AI 2	6	FIS/01	PHYS-01/A	AFFINE Related	
509516 - Imaging and spectroscopy for environment and health	6	FIS/07	PHYS-06/A	AFFINE Related	
509517 - Materials and platforms for artificial intelligence	6	FIS/03	PHYS-03/A	AFFINE Related	
509518 - Mathematics for imaging and signal processing	6	FIS/02	PHYS-02/A	AFFINE Related	

ELENCO DEI LABORATORI:*List of laboratories*

- LABORATORY OF MACHINE LEARNING 509521
- LABORATORY OF COMPUTATIONAL INTELLIGENCE 509522
- LABORATORY OF MACHINE LEARNING FOR PHYSICS AND ASTRONOMY 511277
- LABORATORY OF MEDICAL DEVICES AND SYSTEMS 509528
- 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
- PROJECT WORK 508207

EVENTUALI ESAMI IN SOVRANNUMERO (MAX 24 CFU)*POSSIBLE EXTRA EXAMS (MAX 24 CFU)*

ATTIVITÀ FORMATIVA <i>Courses</i>	CFU <i>Cfu</i>	SETTORE <i>Sector</i>	TAF / AMBITO <i>TAF / Teaching Field</i>	ANNO <i>Year</i>

[Catalogo degli insegnamenti](#)[Courses Catalogue](#)

Data / Date

Firma dello studente / Student's signature