UNIVERSITÀ DI PAVIA

DIPARTIMENTO DI INGEGNERIA INDUSTRIALE E DELL'INFORMAZIONE

DEPARTMENT OF INGEGNERIA INDUSTRIALE E DELL'INFORMAZIONE

Corso di Laurea Magistrale in

Master's Degree in

COMPUTER ENGINEERING

PIANO DI STUDIO PER GLI ISCRITTI AL 1° ANNO – DM 270/'04 ANNO ACCADEMICO 2026/2027

STUDY PLAN FOR STUDENTS ENROLLED IN 1°YEAR – DM 270/04 ACADEMIC YEAR 2026/2027

La/Il sottoscritta/o / *The undersigned*,

Matricola / *Matriculation number* .....

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

Nata/o 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* .....

Corso di Laurea Magistrale in COMPUTER ENGINEERING

Master's Degreein COMPUTER ENGINEERING

prevede i seguenti percorsi: */ includes the following tracks:*

- **TRACK 01 - COMPUTER SCIENCE AND MULTIMEDIA**
- **TRACK 02 - DATA SCIENCE**
- **TRACK 03 - EMBEDDED IOT SYSTEMS**
- **TRACK 04 - INTELLIGENT CONTROL SYSTEMS**

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 wish 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 webpage: 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 MAGISTRALE/ *Signature of the Program Coordinator*

.....

TRACK 01 - COMPUTER SCIENCE AND MULTIMEDIA

1° Year - academic year 2026/2027 - 60 CFU

ATTIVITÀ FORMATIVA Courses	CFU cfu	Vecchio Settore Scientifico Old Disciplinary Sector	Nuovo Settore Scientifico New Disciplinary Sector	TAF/Ambito TAF/Teaching Field	Tipo Insegnamento Course Type	Periodo Period
511332 - MULTIMEDIA COMPUTING	12				Compulsory	All Year
Teaching Unit of MULTIMEDIA COMPUTING						
504703 - COMPUTER VISION	*6*	*ING-INF/05*	*IINF-05/A*	*Distinctive/Ingegneria informatica*	*Compulsory*	*First Semester*
509072 - WEB AND MULTIMEDIA TECHNOLOGIES	*6*	*ING-INF/05*	*IINF-05/A*	*Distinctive/Ingegneria informatica*	*Compulsory*	*Second Semester*
511333- INFORMATION RETRIEVAL	6	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Compulsory	First Semester
504710 - NUMERICAL METHODS IN ENGINEERING SCIENCES	6	MAT/08	MATH-05/A	Related/Supplementary/Affine/Integrativa	Compulsory	First Semester
504712 - ADVANCED COMPUTER ARCHITECTURE	6	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Compulsory	Second Semester
One course among:						
511767 - DATA SCIENCE AND CYBERSECURITY	6	ING-INF/05	IINF-05/A	Related Supplementary/Affine/Integrativa	Elective	Second Semester
511765 - FOUNDATIONS OF CYBERSECURITY	6	ING-INF/05	IINF-05/A	Related Supplementary/Affine/Integrativa	Elective	First Semester
504464 - ORGANIZATION THEORY AND DESIGN	6	SECS-P/06	ECON-04/A	Related/Supplementary/Affine/Integrativa	Elective	Second Semester
511766 - AGILE PROJECTS FOR DIGITAL AND AI TRANSFORMATION	6	ING-INF/05	IINF-05/A	Related/Supplementary/Affine/Integrativa	Elective	First Semester
504713 - ENTERPRISE DIGITAL INFRASTRUCTURE	12	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Compulsory	Second Semester
504709 - HUMAN COMPUTER INTERACTION	6	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Compulsory	First Semester
One course among:						
510173 - IOT MOBILE PROGRAMMING	6	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Elective	First Semester
504716 - INDUSTRIAL INFORMATICS AND EMBEDDED SYSTEMS	6	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Elective	Second Semester

TRACK 02 - DATA SCIENCE

1° Year - academic year 2026/2027 - 60 CFU

ATTIVITÀ FORMATIVA Courses	CFU cfu	Vecchio Settore Scientifico Old Disciplinary Sector	Nuovo Settore Scientifico New Disciplinary Sector	TAF/Ambito TAF/Teaching Field	Tipo Insegnamento Course Type	Periodo Period
511333 - INFORMATION RETRIEVAL	6	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Compulsory	First Semester
504710 - NUMERICAL METHODS IN ENGINEERING SCIENCES	6	MAT/08	MATH-05/A	Related/Supplementary/Affine/Integrativa	Compulsory	First Semester
504712 - ADVANCED COMPUTER ARCHITECTURE	6	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Compulsory	Second Semester
504707 - ARTIFICIAL INTELLIGENCE	6	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Compulsory	First Semester
509070 - STATISTICAL LEARNING THEORY	6	ING-INF/04	IINF-04/A	Distinctive/Ingegneria informatica	Compulsory	First Semester

511767 - DATA SCIENCE AND CYBERSECURITY	6	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Compulsory	Second Semester
504713 - ENTERPRISE DIGITAL INFRASTRUCTURE	12	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Compulsory	Second Semester
510800 - MACHINE AND DEEP LEARNING	12				Compulsory	Second Semester
Teaching unit of MACHINE and DEEP LEARNING						
509071 - MACHINE LEARNING	*6*	*ING-INF/05*	*IINF-05/A*	*Distinctive/Ingegneria informatica*	*Compulsory*	*Second Semester*
509073 - DEEP LEARNING	*6*	*ING-INF/05*	*IINF-05/A*	*Distinctive/Ingegneria informatica*	*Compulsory*	*Second Semester*

TRACK 03 - EMBEDDED IOT SYSTEMS

1° Year - academic year 2026/2027 - 54 CFU

ATTIVITÀ FORMATIVA Courses	CFU cfu	Vecchio Settore Scientifico Old Disciplinary Sector	Nuovo Settore Scientifico New Disciplinary Sector	TAF/Ambito TAF/Teaching Field	Tipo Insegnamento Course Type	Periodo Period
504714 - PROCESS CONTROL AND ROBOTICS	12				Compulsory	All Year
Teaching Unit of PROCESS CONTROL AND ROBOTICS						
504462 - PROCESS CONTROL	*6*	*ING-INF/04*	*IINF-04/A*	*Distinctive/Ingegneria informatica*	*Compulsory*	*First Semester*
504463 - ROBOT CONTROL	*6*	*ING-INF/04*	*IINF-04/A*	*Distinctive/Ingegneria informatica*	*Compulsory*	*Second Semester*
504710 - NUMERICAL METHODS IN ENGINEERING SCIENCES	6	MAT/08	MATH-05/A	Related/Supplementary/Affine/Integrativa	Compulsory	First Semester
511810 - EMBEDDED IOT SYSTEMS	12				Compulsory	All Year
Teaching Unit of EMBEDDED IOT SYSTEMS						
510173 - IOT MOBILE PROGRAMMING	*6*	*ING-INF/05*	*IINF-05/A*	*Distinctive/Ingegneria informatica*	*Compulsory*	*First Semester*
504716 - INDUSTRIAL INFORMATICS AND EMBEDDED SYSTEMS	*6*	*ING-INF/05*	*IINF-05/A*	*Distinctive/Ingegneria informatica*	*Compulsory*	*Second Semester*
504712 - ADVANCED COMPUTER ARCHITECTURE	6	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Compulsory	Second Semester
509071 - MACHINE LEARNING	6	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Compulsory	Second Semester
504464 - ORGANIZATION THEORY AND DESIGN	6	SECS-P/06	ECON-04/A	Related/Supplementary/Affine/Integrativa	Compulsory	Second Semester
One course among:						
511765 - FOUNDATIONS OF CYBERSECURITY	6	ING-INF/05	IINF-05/A	Related/Supplementary/Affine/Integrativa	Elective	Second Semester
502515 - ELETTRONICA DEI SISTEMI DIGITALI	6	ING-INF/01	IINF-01/A	Related/Supplementary/Affine/Integrativa	Elective	Second Semester
509584 - CLOUD COMPUTING	6	ING-INF/05	IINF-05/A	Related/Supplementary/Affine/Integrativa	Elective	Second Semester
504718 - INFORMATION SECURITY	6	ING-INF/05	IINF-05/A	Related/Supplementary/Affine/Integrativa	Elective	Second Semester
504717 - INDUSTRIAL CONTROL	6	ING-INF/04	IINF-04/A	Related/Supplementary/Affine/Integrativa	Elective	Second Semester
509674 - POWER ELECTRONICS	6	ING-IND/32	IIND-08/A	Related/Supplementary/Affine/Integrativa	Elective	Second Semester

TRACK 04 - INTELLIGENT CONTROL SYSTEMS

1° Year - academic year 2026/2027 - 60 CFU

ATTIVITÀ FORMATIVA Courses	CFU cfu	Vecchio Settore Scientifico Old Disciplinary Sector	Nuovo Settore Scientifico New Disciplinary Sector	TAF/Ambito TAF/Teaching Field	Tipo Insegnamento Course Type	Periodo Period
504714 - PROCESS CONTROL AND ROBOTICS	12				Compulsory	All Year
Teaching Unit of PROCESS CONTROL AND ROBOTICS						
504462 - PROCESS CONTROL	*6*	*ING-INF/04*	*IINF-04/A*	*Distinctive/Ingegneria informatica*	*Compulsory*	*First Semester*
504463 - ROBOT CONTROL	*6*	*ING-INF/04*	*IINF-04/A*	*Distinctive/Ingegneria informatica*	*Compulsory*	*Second Semester*
504710 - NUMERICAL METHODS IN ENGINEERING SCIENCES	6	MAT/08	MATH-05/A	Related/Supplementary/Affine/Integrativa	Compulsory	First Semester
504712 - ADVANCED COMPUTER ARCHITECTURE	6	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Compulsory	Second Semester
504707 - ARTIFICIAL INTELLIGENCE	6	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Compulsory	First Semester
509070 - STATISTICAL LEARNING THEORY	6	ING-INF/04	IINF-04/A	Distinctive/Ingegneria informatica	Compulsory	First Semester
One course among:						
504464 - ORGANIZATION THEORY AND DESIGN	6	SECS-P/06	ECON-04/A	Related/Supplementary/Affine/Integrativa	Elective	Second Semester
509073 - DEEP LEARNING	6	ING-INF/05	IINF-05/A	Related/Supplementary/Affine/Integrativa	Elective	Second Semester
509071 - MACHINE LEARNING	6	ING-INF/05	IINF-05/A	Distinctive/Ingegneria informatica	Compulsory	Second Semester
504717 - INDUSTRIAL CONTROL	6	ING-INF/04	IINF-04/A	Distinctive/Ingegneria informatica	Compulsory	Second Semester
FREE CHOICE FROM THE UNIVERSITY COURSE OFFER	6					
509073 - DEEP LEARNING	6	ING-INF/05	IINF-05/A	Optional/A scelta dello studente	Elective	Second Semester
511767 - DATA SCIENCE AND CYBERSECURITY	6	ING-INF/05	IINF-05/A	Optional/A scelta dello studente	Elective	Second Semester
511765 - FOUNDATIONS OF CYBERSECURITY	6	ING-INF/05	IINF-05/A	Optional/A scelta dello studente	Elective	First Semester
509005 - OPTIMIZATION MODELS AND ALGORITHMS FOR DATA SCIENCE	6	MAT/09	MATH-06/A	Optional/A scelta dello studente	Elective	Second Semester

Elenco degli insegnamenti anticipabili

Anno di corso	Codice insegnamento	Denominazione insegnamento	CFU	Vecchio Settore	Nuovo Settore
2	504707	ARTIFICIAL INTELLIGENCE	6	ING-INF/05	IINF-05/A
2	504718	INFORMATION SECURITY	6	ING-INF/05	IINF-05/A
2	505018	SATELLITE DATA ANALYSIS	**6**	ING-INF/03	IINF-03/A
2	510799	ALGORITHMS AND SYSTEMS FOR ROBOTICS	6	ING-INF/05	IINF-05/A
2	504723	ELECTRICAL DRIVES FOR INDUSTRIAL APPLICATIONS	6	ING-IND/32	IIND-08/A
2	504703	COMPUTER VISION	6	ING-INF/05	IINF-05/A

2	510805	NONLINEAR CONTROL AND OPTIMIZATION	12	ING-INF/04	IINF-04/A

EVENTUALI ESAMI IN SOVRANNUMERO (MAX 24 CFU)

POSSIBLE EXTRA EXAMS (MAX 24 CFU)

ATTIVITÀ FORMATIVA *Courses*	**CFU** *Cfu*	**SETTORE** *Sector*	**YEAR** *Year*

Catalogo degli insegnamenti

Courses Catalogue

Data / *Date*.....

Firma dello studente / *Student's signature* .....