



UNIVERSITÀ DI PAVIA

DIPARTIMENTO DI INGEGNERIA CIVILE E ARCHITETTURA

DEPARTMENT OF INGEGNERIA CIVILE E ARCHITETTURA

Corso di Laurea Magistrale in

Master's Degree in

CIVIL ENGINEERING FOR MITIGATION OF RISK FROM NATURAL HAZARDS

PIANO DI STUDIO PER GLI ISCRITTI AL 2° ANNO – DM 270/'04 ANNO ACCADEMICO 2026/2027

STUDY PLAN FOR STUDENTS ENROLLED IN 2°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 CIVIL ENGINEERING FOR MITIGATION OF RISK FROM NATURAL HAZARDS

Master's Degree in CIVIL ENGINEERING FOR MITIGATION OF RISK FROM NATURAL HAZARDS

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

- PERCORSO 01 - REDUCTION OF SEISMIC RISK (ROSE)

- PERCORSO 02 - HYDROGEOLOGICAL RISK ASSESSMENT AND MITIGATION (HYRIS)

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*

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TRACK 01 - REDUCTION OF SEISMIC RISK (ROSE)

1° Year - academic year 2025/2026 - 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
508173 - DYNAMICS OF STRUCTURES	6	ICAR/08	CEAR-06/A	Distinctive/Ingegneria civile	Compulsory	First Semester
508174 - REINFORCED CONCRETE STRUCTURES	6	ICAR/09	CEAR-07/A	Distinctive/Ingegneria civile	Compulsory	First Semester
508171 - APPLIED MATHEMATICS	6	MAT/08	MATH-05/A	Related/Supplementary/Affine/Integrativa	Compulsory	First Semester
508175 - COMPUTATIONAL MECHANICS	6	ICAR/08	CEAR-06/A	Distinctive/Ingegneria civile	Compulsory	First Semester
508176 - FOUNDATION ENGINEERING AND EARTH RETAINING STRUCTURES	6	ICAR/07	CEAR-05/A	Distinctive/Ingegneria civile	Compulsory	Second Semester
508172 - PROBABILITY AND STATISTICS FOR ENGINEERING APPLICATIONS	6	ICAR/09	CEAR-07/A	Distinctive/Ingegneria civile	Compulsory	First Semester
508177 - SEISMIC HAZARD AND GEOTECHNICAL EARTHQUAKE ENGINEERING	12				Compulsory	Second Semester
<i>Unità Didattiche di SEISMIC HAZARD AND GEOTECHNICAL EARTHQUAKE ENGINEERING</i>						
511392 - SEISMIC HAZARD AND ENGINEERING SEISMOLOGY	6	GEO/10	GEOS-04/A	Related/Supplementary/Affine/Integrativa	Compulsory	Second Semester
508179 - GEOTECHNICAL EARTHQUAKE ENGINEERING	6	ICAR/07	CEAR-05/A	Distinctive/Ingegneria civile	Compulsory	Second Semester
508180 - ADVANCED STRUCTURAL ANALYSIS AND FUNDAMENTALS OF SEISMIC DESIGN	12				Compulsory	Second Semester
<i>Unità Didattiche di ADVANCED STRUCTURAL ANALYSIS AND FUNDAMENTALS OF SEISMIC DESIGN</i>						
508181 - NONLINEAR RESPONSE ANALYSIS	6	ICAR/09	CEAR-07/A	Distinctive/Ingegneria civile	Compulsory	Second Semester
508182 - FUNDAMENTALS OF SEISMIC DESIGN	6	ICAR/09	CEAR-07/A	Distinctive/Ingegneria civile	Compulsory	Second Semester

2° 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
508185 - MASONRY STRUCTURES	6	ICAR/09	CEAR-07/A	Distinctive/Ingegneria civile	Compulsory	First Semester
508186 - BRIDGE STRUCTURES	6	ICAR/09	CEAR-07/A	Distinctive/Ingegneria civile	Compulsory	First Semester
509688 - RISK ASSESSMENT AND LOSS ESTIMATION	6	ICAR/09	CEAR-07/A	Distinctive/Ingegneria civile	Compulsory	First Semester
FREE CHOICE FROM THE UNIVERSITY COURSE OFFER	12					
508189 - STEEL STRUCTURES	6	ICAR/09	CEAR-07/A	Optional/A scelta dello studente	Elective	First Semester
509689 - SEISMIC ISOLATION AND DISSIPATION	6	ICAR/09	CEAR-07/A	Optional/A scelta dello studente	Elective	First Semester
511390 - SYSTEMIC RISK AND INDIRECT IMPACTS	3	ICAR/02	CEAR-01/B	Optional/A scelta dello studente	Elective	Second Semester
512125 - MODELING WIND INTERACTIONS WITH ENVIRONMENT AND STRUCTURES	3	ING-IND/06	IIND-01/F	Optional/A scelta dello studente	Elective	Second Semester

One course among:							
509536 - ITALIAN LANGUAGE FOR FOREIGN STUDENTS*	3	NN	NN	Other/Altre conoscenze utili per l'inserimento nel mondo del lavoro	Elective		First Semester
508207 - PROJECT WORK	3	NN	NN	Other/Altre conoscenze utili per l'inserimento nel mondo del lavoro	Elective		Second Semester
503327 - MASTER THESIS	27	PROFIN S	PROFIN S	Final Exam/Per la prova finale	Compulsory		

*Students with a non-Italian qualification must choose "Italian Language for Foreign Student"

TRACK 02 - HYDROGEOLOGICAL RISK ASSESSMENT AND MITIGATION (HYRIS)

1° Year - academic year 2025/2026 - 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
508196 - CONTINUUM MECHANICS	6	ICAR/01	CEAR-01/A	Distinctive/Ingegneria civile	Compulsory	First Semester
508069 - FLUVIAL HYDRAULICS	6	ICAR/01	CEAR-01/A	Distinctive/Ingegneria civile	Compulsory	First Semester
508171 - APPLIED MATHEMATICS	6	MAT/08	MATH-05/A	Related/Supplementary/Affine/Integrativa	Compulsory	First Semester
508197 - ENGINEERING GEOLOGY AND HYDROMORPHOLOGY	12				Compulsory	First Semester
<i>Unità Didattiche di ENGINEERING GEOLOGY AND HYDROMORPHOLOGY</i>						
508194 - ENGINEERING GEOLOGY	6	GEO/05	GEOS-03/B	Related/Supplementary/Affine/Integrativa	Compulsory	First Semester
508198 - HYDROMORPHOLOGY	6	GEO/04	GEOS-03/A	Related/Supplementary/Affine/Integrativa	Compulsory	First Semester
508172 - PROBABILITY AND STATISTICS FOR ENGINEERING APPLICATIONS	6	ICAR/09	CEAR-07/A	Distinctive/Ingegneria civile	Compulsory	Second Semester
508199 - LANDSLIDES HAZARD AND RISK	6	GEO/05	GEOS-03/B	Related/Supplementary/Affine/Integrativa	Compulsory	Second Semester
508200 - GEOMATICS AND GIS	6	GEO/04	GEOS-03/A	Related/Supplementary/Affine/Integrativa	Compulsory	Second Semester
508201 - COMPUTATIONAL FLUID DYNAMICS	6	ICAR/01	CEAR-01/A	Distinctive/Ingegneria civile	Compulsory	Second Semester
FREE CHOICE FROM THE UNIVERSITY COURSE OFFER	6					
508081 - SNOW AVALANCHES AND RELATED MOUNTAIN NATURAL HAZARDS	6	ICAR/02	CEAR-01/B	Optional/A scelta dello studente	Elective	Second Semester

2° 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
508202 - HYDROLOGICAL RISKS	6	ICAR/02	CEAR-01/B	Distinctive/Ingegneria civile	Compulsory	Second Semester
510798 - FLOOD PROPAGATION AND FLUVIAL PROTECTION WORKS	12				Compulsory	First Semester
<i>Unità Didattiche di FLOOD PROPAGATION AND FLUVIAL PROTECTION WORKS</i>						
507329 - FLOOD PROPAGATION	6	ICAR/02	CEAR-01/B	Distinctive/Ingegneria civile	Compulsory	First Semester

	510802 - FLUVIAL PROTECTION WORKS	6	ICAR/01	CEAR-01/A	Distinctive/Ingegneria civile	Compulsory	First Semester
	509634 - RELIABLE DESIGN AND MANAGEMENT OF URBAN HYDRAULIC INFRASTRUCTURES	6	ICAR/02	CEAR-01/B	Distinctive/Ingegneria civile	Compulsory	First Semester
	FREE CHOICE FROM THE UNIVERSITY COURSE OFFER	6					
	508176 - FOUNDATION ENGINEERING AND EARTH RETAINING STRUCTURES	6	ICAR/07	CEAR-05/A	Optional/A scelta dello studente	Elective	Second Semester
	511390 - SYSTEMIC RISK AND INDIRECT IMPACTS	3	ICAR/02	CEAR-01/B	Optional/A scelta dello studente	Elective	Second Semester
	511763 - RISK MODELLING FOR CLIMATE-RELATED FINANCIAL DISCLOSURE	3	ICAR/02	CEAR-01/B	Optional/A scelta dello studente	Elective	Second Semester
	511764 - HYDRAULIC MEASUREMENTS	3	ICAR/02	CEAR-01/B	Optional/A scelta dello studente	Elective	Second Semester
	509321 - LANDSLIDE MODELING AND MITIGATION STRATEGIES	6	ICAR/07	CEAR-05/A	Optional/Altre conoscenze utili per l'inserimento nel mondo del lavoro	Elective	First Semester
	512125 - MODELING WIND INTERACTIONS WITH ENVIRONMENT AND STRUCTURES	3	ING-IND/06	IIND-01/F	Optional/A scelta dello studente	Elective	Second Semester
One course among:							
	509536 - ITALIAN LANGUAGE FOR FOREIGN STUDENTS*	3	NN	NN	Other/Altre conoscenze utili per l'inserimento nel mondo del lavoro	Elective	First Semester
	508207 - PROJECT WORK	3	NN	NN	Other/ Altre conoscenze utili per l'inserimento nel mondo del lavoro	Elective	Second Semester
	503327 - MASTER THESIS	27	PROFIN_S	PROFIN_S	Final Exam/ Per la prova finale	Compulsory	

*Students with a non-Italian qualification must choose "Italian Language for Foreign Student"

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>	YEAR <i>Year</i>

[Catalogo degli insegnamenti](#)

[Courses Catalogue](#)

Data / Date.....

Firma dello studente / *Student's signature*