

Master degree in
ENVIRONMENTAL ENGINEERING (IN1825, ordinamento 2020)
DM270 Classe LM-35
PLAN FOR STUDENTS ENROLLED IN ACADEMIC YEAR 2021

The master degree in Environmental Engineering is organized in two curriculum:
 SOIL, WATER AND ENVIRONMENT and ENVIRONMENTAL ENGINEERING IN COOPERATION WITH ENSTP.
 All students enrolled in Padova belong to the curriculum SOIL, WATER AND ENVIRONMENT because the curriculum ENVIRONMENTAL ENGINEERING IN COOPERATION WITH ENSTP is reserved only for students enrolled at the Ecole Nationale Supérieure des Travaux Publics (ENSTP) in Yaoundé Cameroon.

Within the curriculum SOIL, WATER AND ENVIRONMENT students can choose among 3 different paths:

- ENVIRONMENT AND SUSTAINABILITY
- LAND PLANNING AND MANAGEMENT
- SOIL PROTECTION AND WATER MANAGEMENT

Students choose their path by filling in their study plan, at the end of October

Attendance to didactic activities is not compulsory but recommended.

There are no constraints for taking the second year exams or preparatory courses. Any prerequisites are indicated in the syllabus of each individual exam.

CURRICULUM SOIL, WATER AND ENVIRONMENT (001PD)

Year	Semester	Code	Course	ECTS	Hours	Disciplinary scientific sector	Mandatory for Path ENVIRONMENT AND SUSTAINABILITY	Mandatory for Path LAND PLANNING AND MANAGEMENT	Mandatory for Path SOIL PROTECTION AND WATER MANAGEMENT	Language	Evaluation
FIRST YEAR COURSES											
I	1	INQ0090558	ECOTOXICOLOGY AND HEALTH RISK ASSESSMENT	6	LEZ: 48 ore	ICAR/03	X			EN	FINAL GRADE
I	1	INP5070464	ENVIRONMENTAL FLUID MECHANICS	6	LEZ: 48 ore	ICAR/01			X	EN	FINAL GRADE
I	1	INP9087738	LAND SURVEYING AND GEOGRAPHICAL INFORMATION SYSTEM (GIS)	9	LEZ: 72 ore	ICAR/06		X		EN	FINAL GRADE
I	1	INP7082054	RIVER ENGINEERING	9	LEZ: 72 ore	ICAR/02			X	EN	FINAL GRADE
I	1	INP9087410	ENVIRONMENTAL ECONOMICS AND RESOURCE VALUATION	6	LEZ: 48 ore	ICAR/22	X	X		EN	FINAL GRADE
I	1	INP7082045	GEOLOGY AND GEOCHEMISTRY	6	LEZ: 48 ore	GEO/07			X	EN	FINAL GRADE
I	1	INP7082044	REMEDICATION OF CONTAMINATED SITES	9	LEZ: 72 ore	ICAR/03	X	X		EN	FINAL GRADE
I	2	INP9087498	CIRCULAR AND SUSTAINABLE WASTE MANAGEMENT	9	LEZ: 48 ore	ICAR/03	X			EN	FINAL GRADE
I	2	INP9087499	COASTAL MANAGEMENT AND PROTECTION	6	LEZ: 48 ore	ICAR/02			X	EN	FINAL GRADE
I	2	INP7082050	DESIGN OF STRUCTURES FOR ENVIRONMENTAL PROTECTION	9	LEZ: 72 ore	ICAR/09		X	X	EN	FINAL GRADE
I	2	INP9087765	GEOMATICS METHODOLOGIES FOR LAND MONITORING	6	LEZ: 48 ore	ICAR/06			X	EN	FINAL GRADE
I	2	INP9087758	RENEWABLE ENERGY TECHNIQUES	6	LEZ: 48 ore	ICAR/03 (CFU 3.0), ING-IND/11 (CFU 3.0)	X	X		EN	FINAL GRADE
I	2	INP9087759	STRATEGIC ENVIRONMENTAL PLANNING	6	LEZ: 48 ore	M-GGR/01		X		EN	FINAL GRADE
I	2	INP9087412	WATER AND WASTEWATER TREATMENT	12	LEZ: 96 ore	ICAR/03	X		X	EN	FINAL GRADE
SECOND YEAR COURSES											
II	1	INP9087778	AIR POLLUTION CONTROL	6	LEZ: 48 ore	ICAR/03	X			EN	FINAL GRADE
II	1	INP7082046	ENVIRONMENTAL GEOTECHNICS	6	LEZ: 48 ore	ICAR/07	X	X	X	EN	FINAL GRADE
II	1	INP7082053	MODELLING AND CONTROL OF ENVIRONMENTAL SYSTEMS	6	LEZ: 48 ore	BIO/07			X	EN	FINAL GRADE
II	1	INP9087768	RECYCLING AND REUSE OF RAW MATERIALS	9	LEZ: 72 ore	ICAR/09 (CFU 6.0) ING-IND/21 (CFU 3.0)	X	X		EN	FINAL GRADE
II	1	INP9087798	REGIONAL PLANNING	6	LEZ: 48 ore	ICAR/20		X		EN	FINAL GRADE
II	2	INP9087764	ENVIRONMENTAL IMPACT AND LIFE CYCLE ASSESSMENT	6	LEZ: 48 ore	ICAR/03	X	X		EN	FINAL GRADE
II	2	INP9087799	WATER RESOURCES MANAGEMENT	9	LEZ: 72 ore	ICAR/02			X	EN	FINAL GRADE
II	2	INP9087763	ENVIRONMENTAL PROJECT WORK	6	LEZ: 48 ore	ICAR/03	X			EN	FINAL GRADE
II	2	INP5070428	GROUNDWATER HYDROLOGY	6	LEZ: 48 ore	ICAR/02			X	EN	FINAL GRADE
II	2	INP9087769	LANDSCAPE PROTECTION AND DESIGN	9	LEZ: 72 ore	ICAR/20		X		EN	FINAL GRADE

COURSES OFFERED FOR THE STUDENT'S CHOICE (15 cfu)

(Elective courses can be attended at the 1st and/or at the 2nd year and can be chosen among this list or outside this list)

I/II	1	INP9087767	HYDROPOWER AND MARINE RENEWABLE ENERGY	6	LEZ: 48 ore	ICAR/02				EN	FINAL GRADE
I/II	2	INQ1098718	ENVIRONMENTAL SUSTAINABILITY METRICS	6	LEZ: 48 ore	ICAR/03 ING-IND/27				EN	FINAL GRADE
I/II	2	INQ0094278	GEOTECHNICAL DESIGN IN LAND PROTECTION	6	LEZ: 48 ore	ICAR/07				EN	FINAL GRADE
I/II	2	INP9087244	BIG DATA ANALYTICS DATA MINING FOR ENGINEERS	6	LEZ: 48 ore	SECS-S/01				EN	FINAL GRADE
I/II	1	INP9087766	UNDERGROUND FLUIDS, ENERGY AND ENVIRONMENT	6	LEZ: 48 ore	ICAR/02				EN	FINAL GRADE
I/II	1	INP9087762	GEOLOGY AND GEOPHYSICS	6	LEZ: 48 ore	GEO/07				EN	FINAL GRADE
I/II	2	INP9087761	ENVIRONMENTAL HYDRAULICS	6	LEZ: 48 ore	ICAR/01 (CFU 3.0), ICAR/02 (CFU 3.0)				EN	FINAL GRADE
I/II	2	INP9088398	INTERNATIONAL ENVIRONMENTAL LAW (1)	6	LEZ: 48 ore	IUS/10				EN	FINAL GRADE

OTHER ACTIVITIES

I	1	INP9087943	ENGLISH LANGUAGE B2 (PRODUCTIVE SKILLS)	3	ALT: 75 ore	--	OA	OA	OA	EN	FINAL JUDGMENT
I	1	INQ0093091	ITALIAN LANGUAGE	3	ALT: 75 ore	--	OA	OA	OA	IT	FINAL JUDGMENT
II		IN37106948	PROVA FINALE	21	PRF: 450 ore	PROFIN_S	X	X		EN	FINAL JUDGMENT

KEY:

X = compulsory for the Path

OA = compulsory alternatively: native Italian speakers students must take ENGLISH LANGUAGE B2, other students must take ITALIAN LANGUAGE

(1) = held in Academic Year 2021/22

Anno	Periodo	Codice	Insegnamento	CFU	ORE	SSD	Att.Obblig.	Lingua	Valutaz.
CURRICULUM ENVIRONMENTAL ENGINEERING IN COOPERATION WITH ENSTP (002PD)									
reserved only for students enrolled at the Ecole Nationale Supérieure des Travaux Publics (ENSTP) in Yaoundé Cameroon									
FIRST YEAR COURSES									
I	1 o 2	INP7082050	DESIGN OF STRUCTURES FOR ENVIRONMENTAL PROTECTION	9	LEZ: 72 ore	ICAR/09	SI	EN	FINAL GRADE
I	1 o 2	INP7082046	ENVIRONMENTAL GEOTECHNICS	6	LEZ: 48 ore	ICAR/07	SI	EN	FINAL GRADE
I	1 o 2	INP7082044	REMEDICATION OF CONTAMINATED SITES	9	LEZ: 72 ore	ICAR/03	SI	EN	FINAL GRADE
I	1 o 2	INP7082049	SOLID WASTE MANAGEMENT	9	LEZ: 72 ore	ICAR/03	SI	EN	FINAL GRADE
I	1 o 2	INP7082048	WASTEWATER TREATMENT	6	LEZ: 48 ore	ICAR/03	SI	EN	FINAL GRADE
I	1 o 2	INP7082045	GEOLOGY AND GEOCHEMISTRY	6	LEZ: 48 ore	GEO/07	SI	EN	FINAL GRADE
I	1 o 2	INP7082066	ADVANCED ENGLISH	3	ALT: 75 ore	--	SI	EN	FINAL JUDGMENT
SECOND YEAR COURSES									
II	1 o 2	INP7082051	AIR POLLUTION	6	LEZ: 48 ore	ICAR/03	SI	EN	FINAL GRADE
II	1 o 2	INP7082055	ENVIRONMENTAL IMPACT ASSESSMENT AND LCA	6	LEZ: 48 ore	ICAR/03	SI	EN	FINAL GRADE
II	1 o 2	INP7082054	RIVER ENGINEERING	9	LEZ: 72 ore	ICAR/02	SI	EN	FINAL GRADE
II	1 o 2	INP7082052	SUSTAINABLE AND RENEWABLE RESOURCES	6	LEZ: 48 ore	ICAR/03	SI	EN	FINAL GRADE
II	1 o 2	INP7082053	MODELLING AND CONTROL OF ENVIRONMENTAL SYSTEMS	6	LEZ: 48 ore	ING-INF/04	SI	EN	FINAL GRADE
ATTIVITA' DEL SECONDO ANNO									
I		INP7082056	RESEARCH METODOLOGY	3	ALT: 75 ore	--	SI	EN	FINAL JUDGMENT
I		INP9087358	MASTER THESIS	21	PRF: 525 ore	PROFIN_S	SI	EN	FINAL JUDGMENT
COURSES OFFERED FOR THE STUDENT'S CHOICE (15 cfu)									
I	1 o 2	INP7082057	GIS AND CARTOGRAPHY	6	LEZ: 48 ore	ICAR/06	NO	EN	FINAL GRADE
I	1 o 2	INP7082058	ECOTOXICOLOGY	6	LEZ: 48 ore	ICAR/03	NO	EN	FINAL GRADE
I	1 o 2	INP7082059	WATER SUPPLY TREATMENT	6	LEZ: 48 ore	ICAR/03	NO	EN	FINAL GRADE