



**MASTER'S DEGREE IN
ENVIRONMENTAL ENGINEERING FOR SUSTAINABLE DEVELOPMENT
DEGREE PROGRAMME 2025/2026**

Course contents are available at this [link](#)






1st year

Sem	Teaching course	SSD*	TAF*	Credits	h
Common courses					
1	Numerical Computing: Methods, Models and Algorithm	MAT/08	C	6	60
1	Scientific Computing Workshop	MAT/08	F	3	30
1	Environmental Geoengineering	ING-IND/28	B	6	60
1	Environmental Fluid Mechanics	ICAR/01	B	6	60
	Integrated Course: Remediation and Chemical-Physical Treatment of Soils				
1	- Module: Chemical-Physical Treatment of Soils	ING-IND/29	B	6	60
2	- Module: Contaminated Sites Remediation	ICAR/03	B	6	60
2	Applied Geophysics	GEO/11	B	6	60
2	Geodesign Lab	ICAR/20	F	3	50
2	Hydrogeology	GEO/05	B	6	60
2	Impact Assessment and Environmental Rehabilitation	ING-IND/28	B	6	60

2nd year

Sem	Teaching course	SSD*	TAF*	Credits	h
Common courses					
	<i>One course among:</i>				
1	Foundations and Earth Retaining Structures	ICAR/07	C	6	60
1	Computational Fluid Mechanics	ICAR/01	C	6	60
1	Remote Sensing for Environment Monitoring and Modelling	ICAR/06	C	6	60
1	Recovery of Secondary Raw Materials	ING-IND/29	C	6	60
1	Urban and Regional Sustainability: Smart Cities and Ecosystem Services in Planning	ICAR/20	C	6	60
2	Geochemical characterization	GEO/09	C	6	60
2	Green and Applied Chemistry	CHIM/03	C	6	60
2	Environmental Economics	SECS-P/03	C	6	60
2	Design of Environmental Remediation and Decontamination Systems	ICAR/03	C	6	60
2	Safety and Project Management at Construction Sites	ING-IND/28	C	6	60
2	Renewable Energy Technologies	ING-IND/09	C	6	60
	Integrated Course: Digital Platforms for Monitoring				
2	- Module: Hardware Platforms for IoT	ING-INF/01	C	3	30
2	- Module: Data Processing and Transmission	ING-INF/03	C	3	30



Curriculum Environmental remediation technologies					
1	Sustainable Solid Waste Management: materials and energy recovery 	ICAR/03	B	9	90
1	Wastewater Treatment Plants 	ICAR/03	B	9	90
2	Integrated Course: Treatment of Fluids and Waste Gases - Module: Treatment of Fluids	ING-IND/29	B	6	60
2	- Module: Control and treatment of atmospheric emissions 	ICAR/03	B	6	60
Curriculum Geo-engineering and Land protection					
1	Integrated Course: Hydrogeological Protection - Module: Watershed and Stream Restoration Engineering	ICAR/02	B	6	60
1	- Module: Slope Instability and Hydrogeological Risk	GEO/05	B	6	60
1	Integrated Course: Rock Engineering - Module: Rock Mechanics	ING-IND/28	B	6	60
2	- Module: Excavation Engineering and Underground Works	ING-IND/28	B	6	60
2	<i>Choose between:</i> Coastal Hydraulics	ICAR/01	B	6	60
2	Design and Management of Geoengineering Works for Environment Protection	ING-IND/28	B	6	60
Curriculum Spatial and Environmental Planning					
1	Geodesign	ICAR/20	B	6	60
1	Integrated Course: Strategic Environmental Planning - Module: Environmental Planning 	ICAR/20	B	6	60
2	- Module: Strategic planning 	ICAR/20	B	6	60
1	Integrated Course: Planning Energy System - Module: Sustainable Urban and Territorial Planning	ICAR/20	B	6	60
2	- Module: Territorial Energy Systems: Analysis and Design	ING-IND/11	C	6	60

Additional credits to be acquired

Sem	Activity	SSD*	TAF*	Credits	h
	Elective activities ¹		D	12	
	English Language Test – B2 ²		F	3	
	Final Examination		E	15	

TOTAL CREDITS 120

- (1) The elective activities must be consistent with the personal educational plan and they need approval by the Degree Programme Board
- (2) The credits of European language level can be acquired:
 - passing the English language test at B2 European level (CEFR) at Centro Linguistico d’Ateneo,
 - showing appropriate certification of B2 European level (CEFR) knowledge.



The Study Programme includes also the following laboratories which can be chosen by students to satisfy part of the credits of own free choice:

Sem	Laboratory	SSD*	TAF*	Credits	h
1	Sanitary and Environmental Engineering Laboratory	ICAR/03		2	25
2	Environmental Geophysics Lab	GEO/11		3	30
2	Laboratory of Safety and Project Management at Construction Sites	ING-IND/28		3	25
2	Workshop of Regional Planning	ICAR/20		3	45

Other optional activities can be communicated on course web site.

The semester could change; check in [Course bulletin](#) of the academic year.

***Abbreviations**

SSD	Scientific Disciplinary Sector
TAF	Type of Educational Activity