



## MASTER'S DEGREE IN ENVIRONMENTAL AND LAND ENGINEERING




### DEGREE PROGRAMME 2018/2019

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


#### 1<sup>st</sup> year

Sem	Teaching course	SSD*	TAF*	Credits	h
<b>Common courses</b>					
1	Numerical Calculus and Applied Mathematics	MAT/08	C	8	80
1	Environmental Geoengineering	ING-IND/28	B	6	60
1	Applied Geophysics	GEO/11	B	6	60
1	Computer Science Lab	ING-INF/05	F	5	50
1	Integrated Course: Remediation and Chemical-Physical Treatment of Soils				
	- Module: Chemical-Physical Treatment of Soils	ING-IND/29	B	6	60
2	- Module: Contaminated Sites Remediation	ICAR/03	B	6	60
1	Geodesign	ICAR/20	F	3	50
2	Hydrogeology	GEO/05	B	6	60
2	Environmental Hydraulics	ICAR/01	B	6	60
2	Impact Assessment and Environmental Rehabilitation	ING-IND/28	B	6	60

#### 2<sup>nd</sup> year

Sem	Teaching course	SSD*	TAF*	Credits	h
<b>Common courses</b>					
1	<i>One course among:</i>				
1	Foundations and Earth Retaining Structures	ICAR/07	C	6	60
1	Photogrammetry	ICAR/06	C	6	60
2	Water Supply and Sewerage	ICAR/02	C	6	60
2	Geochemical characterization 	GEO/09	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
<b>Curriculum Environmental remediation technologies</b>					
1	Solid waste management 	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
<b>Curriculum Geo-engineering and Land protection</b>					
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	ING-IND/28	B	6	60
2	- 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>	ICAR/01	B	6	60
2	Coastal Hydraulics	ING-IND/28	B	6	60
2	Design and Management of Geoengineering Works for Environment Protection	ING-IND/28	B	6	60
<b>Curriculum Spatial and Environmental Planning</b>					
1	Integrated Course: Strategic Environmental Planning	ICAR/20	B	6	60
1	- Module: Environmental Planning	ICAR/20	B	6	60
1	- Module: Strategic planning 	ICAR/20	B	6	60
1	Spatial Planning	ICAR/20	B	6	60
2	Integrated Course: Georesources Planning	ICAR/20	B	6	60
2	- Module: Regional Planning of Georesources	ICAR/20	B	6	60
2	- Module: Georesources	GEO/09	C	6	60

#### Additional credits to be acquired

Sem	Activity	SSD*	TAF*	Credits	h
	Other activities		F	2	
	Elective activities <sup>1</sup>		D	9	
	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.

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	Workshop of Regional Planning	ICAR/20		3	45
1	Laboratory of Environmental Geophysics in Coastal Areas	GEO/11		3	30
2	Laboratory of Safety and Project Management at Construction Sites	ING-IND/28		3	25
2	Sanitary and Environmental Engineering Laboratory	ICAR/03		2	25

Other optional activities can be communicated on course web site.

#### \*Abbreviations

SSD	Scientific Disciplinary Sector
TAF	Type of Educational Activity