



## MASTER'S DEGREE IN ENVIRONMENTAL AND LAND ENGINEERING

### DEGREE PROGRAMME 2014/2015

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		F	5	50
1	GIS and Geostatistics Lab		F	5	80
2	Integrated Course: Remediation and Chemical-Physical Treatment of Soils - Module: Contaminated Sites Remediation	ICAR/03	B	6	60
2	- Module: Chemical-Physical Treatment of Soils	ING-IND/29	B	6	60
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> Foundations and Earth Retaining Structures	ICAR/07	C	6	60
1	Recovery of Secondary Raw Materials	ING-IND/29	C	6	60
2	Water Supply and Sewerage	ICAR/02	C	6	60
2	Geochemical characterization	GEO/09	C	6	60
2	Safety and Project Management at Construction Sites	ING-IND/28	C	6	60
<b>Environment Curriculum</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: Treatment of Gaseous Effluents	ING-IND/25	B	6	60
<b>Geo-engineering and Land protection Curriculum</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 - 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
<b>Regional and Urban Planning Curriculum</b>					
1	Integrated Course: Strategic Environmental Planning - Module: Environmental Planning	ICAR/20	B	6	60
1	- Module: Strategic Planning	ICAR/20	B	6	60
2	Integrated Course: Georesources Planning - Module: Regional Planning of Georesources	ICAR/20	B	6	60
2	- Module: Georesources	GEO/09	C	6	60
2	<i>Choose between:</i> Photogrammetry	ICAR/06	B	6	60
2	Transportation Planning	ICAR/05	B	6	60

**Additional credits to be acquired**

Sem	Activity	SSD*	TAF*	Credits	h
	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	Geology Lab			3	
1	Laboratory of Environmental Geophysics in Coastal Areas			3	
2	Laboratory of Safety and Project Management at Construction Sites			3	
2	Sanitary and Environmental Engineering Laboratory			2	

Other optional activities can be communicated on course web site.

**\*Abbreviations**

SSD	Scientific Disciplinary Sector
TAF	Type of Educational Activity