UNIVERSITÀ DEGLI STUDI DI PALERMO

Department: Earth and sea sciences

A.Y. 2015/2016

DEGREE COURSE IN ENVIRONMENTAL SCIENCES

- ENVIRONMENTAL ANALYSIS AND MANAGEMENT -

Characteristics

Class of Master's Degree (MSc) on Environmental and land sciences (LM-75)	2 YEARS	PALERMO	FREE ACCESS	2110

Educational objectives

The 2nd cycle degree course in Environmental Sciences aims to train professionals of high qualification and specialization capable to intervene with multidisciplinary expertise in the prevention, diagnosis and solution of environmental problems, even assuming direct responsibility for projects and facilities.
The objectives of the educational activities for students are directed to:
- Provide a systemic in-depth cultural training with respect to the environment and a good grasp of the scientific method, also in view of a possible access to PhD courses;
- Create the ability to identify and organize the interactions of the various factors involved in the complex environmental processes, systems and problems;
- Build the ability to apply a variety of methodologies for the understanding and control of complex environmental situations as well as for the design of environmental restoration and remediation actions;
- Provide the knowledge to assess environmental resources and formulate hypotheses for land management and planning and for environmental conservation, also incorporating environmental variables with the regulatory systems and the economic logic.

As part of the systemic training necessary to achieve the overall objectives , which is carried out through the integrated knowledge of the biological, chemical, environmental, physical, mathematical disciplines, earth science, legal and economic evaluation.
The educational program provides theoretical, methodological , experimental and applied competences for the analysis of environmental systems and processes and for the promotion of the quality of the environment.
Considerable space is devoted to the preparation of the thesis , which involves an interdisciplinary and experimental work and can be carried out in collaboration with external public or private facilities.

Professional opportunities

Central Public administration, such as Ministries (Environment, Health, Cultural heritage, Infrastructures, University and Scientific and Technological research).
Local public administration, such as regions, Provinces, Minicipalities and ARPA; private companies.
Public and private agencies (after passing the narional qualification examination and enrolment in the relevant registrar).
Graduate may also find professional opportunities in the field of scientific research in agencies and institutions such as Universities, National Research Council, ENEA, ENEL, throught their participation to PhD courses in various scientific fields (biology, geology, chemistry).

Final examination features

It consists of an original written dissertation coherent with the objectives of the degree course, prepared under the guidance of a Course professor, and of its presentation and discussion in front of the examining Board.

Subjects 1 ° year	CFU	Sem.	Val.	SSD	TAF
11382 - ENVIRONMENTAL BIOCHEMISTRY AND ELEMENTS OF TOXICOLOGY *Vento(CU)*	6	1	V	BIO/10	C
16523 - ENVIRONMENTAL GEORESOURCES AND HYDROGEOCHEMISTRY - INTEGRATED COURSE	12	1	V		

Legenda: Per. = periodo o semestre, Val. = Valutazione (V=voto, G=giudizio), TAF= Tipologia Attività Formativa (A=base, B=caratterizzante, C=Affine, S=stages, D=a scelta, F=altre)

Subjects 1 ° year	CFU	Sem.	Val.	SSD	TAF
- ENVIRONMENTAL GEO-RESOURCES *Censi(PA)*	*6*	*1*		*GEO/08*	*B*
- HYDRO-GEOCHEMISTRY *Censi(PA)*	*6*	*2*		*GEO/08*	*B*
17204 - MARINE GEOLOGY *Sulli(PO)*	6	1	V	GEO/02	B
18183 - POLLUTION PHENOMENA AND ENVIRONMENTAL RECLAMATION TECHNOLOGIES *Viviani(PQ)*	6	1	V	ICAR/03	B
18185 - BIO-INDICATORS IN ENVIRONMENTAL ANALYSIS AND MANAGEMENT *Parisi(PA)*	6	2	V	BIO/05	B
18184 - CHEMICAL-PHYSICAL TRAITS OF ENVIRONMENTAL RECLAMATION *Muratore(RU)*	6	2	V	CHIM/02	C
05044 - MATHEMATICAL METHODS AND MODELS FOR APPLICATIONS *Gambino(PA)*	6	2	V	MAT/07	B
	48				

Subjects 2 ° year	CFU	Sem.	Val.	SSD	TAF
18186 - CHEMISTRY OF POLLUTANTS AND NATURAL SUBSTANCES	12	1	V		
- CHEMISTRY OF NATURAL ORGANIC SUBSTANCES *Maggio(PA)*	*6*	*1*		*CHIM/06*	*B*
- POLLUTANTS CHEMISTRY *Piazzese(PA)*	*6*	*1*		*CHIM/01*	*B*
17207 - ENVIRONMENTAL CHEMISTRY *Orecchio(PA)*	6	1	V	CHIM/12	C
17358 - ENGLISH LANGUAGE - LEVEL B1	3	1	G		F
13121 - PRACTICE	2	1	G		F
03510 - PRINCIPLES OF ENVIRONMENTAL IMPACT EVALUATION *Calvo(PQ)*	6	2	V	BIO/07	B
05917 - FINAL EXAMINATION	25	2	G		E
Optional subjects	6				B
Free subjects	12				D
	72				

OPTIONAL SUBJECTS

Optional subjects	CFU	Sem.	Val.	SSD	TAF
16164 - APPLIED ECOLOGY *Vizzini(PO)*	6	2	V	BIO/07	B
15378 - LANDSCAPE ECOLOGY WITH ELEMENTS OF ENVIRONMENTAL AND APPLIED BOTANY *Ilardi(PA)*	6	1	V	BIO/03	B

Legenda: Per. = periodo o semestre, Val. = Valutazione (V=voto, G=giudizio), TAF= Tipologia Attività Formativa (A=base, B=caratterizzante, C=Affine, S=stages, D=a scelta, F=altre)