UNIVERSITÀ DEGLI STUDI DI PALERMO

Department: Earth and sea sciences

A.Y. 2019/2020

DEGREE COURSE IN ANALYSIS AND ENVIRONMENTAL MANAGEMENT

- 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 1st cycle Degree in Chemistry aims at providing basic chemical competences which are important for professional activities requiring familiarity with the scientific method and to train undergraduates capable of applying methods and technologies through the use of specific equipment.
Graduates in Chemistry may widen their competences through 2nd cycle degree courses, university master courses and, after the 2nd cycle, in successive PhD courses and graduate schools. The foremost objective of the course is a sound basic theoretical-experimental training, in accordance with the "Chemistry Eurobachelor" model, proposing educational traits enabling graduates in Chemistry to have access to the greatest possible number of professional opportunities in the scientific and technological fields, and fixing the minimum standards for educational activities. Therefore the course does not provide specific curricula, but complies to the "Chemistry Eurobachelor" model as well as to the model proposed by the Italian Chemical Society, with respect to the "Core chemistry" contents for L-27 courses. The "core" of the course therefore consists of at least 90 credits in the following areas: Mathematics, Physics, Analytical Chemistry, Physical Chemistry, Inorganic Chemistry, Organic Chemistry and Biochemistry.

Professional opportunities

Profile:
Chemical Technician

Functions:
- preparation and validation of reports or analysis results
- data and/or information processing
- management of the chemical laboratory
- management of the work environments safety and protection
- samples analysis
- drawing up certifications
- checking the compliance with safety regulations
- carrying out chemical surveys and analyses related to the conservation of cultural and environmental heritage
- carrying out chemical investigations and analyses relating to the protection of the environment
- drafting and transmitting technical reports

Skills:
- ability to understand and produce texts with appropriate language
- ability to communicate objectives and results of their activity
- knowledge of the scientific principles underlying the activity of the chemical technician
- ability to independently update knowledge
- knowledge of the main chemical analysis methods
- knowledge of analysis instruments
- knowledge of the synthesis methodologies

Professional opportunities:
- Industrial Chemical technician

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)

- Freelance junior chemical technician
- Chemical technician in public environmental protection bodies
- Chemical technician in public laboratories for the protection and preservation of cultural heritage
- Chemical technician in special public security bodies
- Chemical technician in private laboratories of analysis

Final examination features

The final exam consists of an interview in front of a Board composed by three teachers of the Degree course and appointed by the Coordinator. The topic of discussion is chosen by the student from a list prepared by the Board of the Degree course with a specific resolution published annually on the course website. Based on the indicated bibliography, during the interview students must demonstrate their ability to analyse, deepen and re-elaborate in a critical way the proposed topic.

Subjects 1 ° year	CFU	Sem.	Val.	SSD	TAF
19803 - ANALYTICAL ENVIRONMENTAL CONTROL METHODOLOGIES *Piazzese(PA)*	6	1	V	CHIM/01	B
20540 - DEFENCE SYSTEMS AND ANIMAL WELLBEING *Cammarata(PO)*	6	1	V	BIO/05	B
07706 - ENVIRONMENTAL IMPACT EVALUATION *Calvo(PQ)*	6	1	V	BIO/07	B
11718 - LANDSCAPE ECOLOGY *Ilardi(PA)*	6	1	V	BIO/03	C
20542 - ENVIRONMENTAL GEOLOGY, REMOTE SENSING AND GIS - INTEGRATED COURSE	12	2	V		
- ENVIRONMENTAL GEOLOGY AND GIS ANALYSIS *Conoscenti(PO)*	*6*	*2*		*GEO/04*	*B*
- REMOTE SENSING AND TERRITORIAL INFORMATION SYSTEMS *Maltese(RD)*	*6*	*2*		*ICAR/06*	*B*
20543 - MATHEMATICAL MODELS AND DATA ANALYSIS FOR ENVIRONMENTAL MANAGEMENT *Gambino(PA)*	6	2	V	MAT/07	B
18183 - POLLUTION PHENOMENA AND ENVIRONMENTAL RECLAMATION TECHNOLOGIES *Mannina(PO)*	6	2	V	ICAR/03	B
	48				

Subjects 2 ° year	CFU	Sem.	Val.	SSD	TAF
16164 - APPLIED ECOLOGY *Signa(PA)*	6	1	V	BIO/07	B
20541 - BIOINDICATORS AND BIOMARKERS *Parisi(PA)*	6	1	V	BIO/05	C
19805 - GEOCHEMISTRY OF SURFACE PROCESSES *Censi(PA)*	6	1	V	GEO/08	B
13121 - PRACTICE	3	1	G		F
19796 - CHEMISTRY OF ENVIRONMENT AND NATURAL SUBSTANCES - INTEGRATED COURSE	9	2	V		
- CHEMISTRY OF NATURAL SUBSTANCES *Maggio(PA)*	*3*	*2*		*CHIM/06*	*C*
- ENVIRONMENTAL CHEMISTRY *Orecchio(PA)*	*6*	*2*		*CHIM/12*	*B*
20691 - ENGLISH LANGUAGE SKILLS - EQUIVALENT TO LEVEL B2	6	2	G		F
05917 - FINAL EXAMINATION	24	2	G		E
Free subjects (suggested)	12				D
	72				

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OPTIONAL SUBJECTS

Free subjects (suggested)	CFU	Sem.	Val.	SSD	TAF
12451 - GEOSCIENCES TEACHING METHODOLOGY *Madonia(PA)*	6	2	V	GEO/04	D

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