



UNIVERSITÀ DEGLI STUDI DI PALERMO

Department: Earth and sea sciences

A.Y. 2022/2023

DEGREE COURSE IN NATURAL SCIENCES

- NATURE VULNERABILITY AND SUSTAINABILITY -

Characteristics



Class of Master's Degree
(MSc) on Natural sciences
(LM-60)



2 YEARS



PALERMO



FREE ACCESS



2056

Educational objectives

The educational programme is completed by laboratory activities, internship and practice at public and private accredited institutions, as well as by field experimentation, through multi- and inter-disciplinary study trips.

At the end of the course, 2nd cycle graduates will possess advanced knowledge with respect to the study of biotic and abiotic components of ecosystems, to their conservation, to the techniques of land management and to the processes affecting the quality of environment and the conservation of biodiversity.

Professional opportunities

Profile:

naturalist

Functions:

Graduates of this Course must be able to carry out: basic and applied natural science research; cataloguing of naturalistic assets and design of monitoring plans; impact evaluation, recovery and management of natural environments; faunal management and conservation of biodiversity; application of the norms of environmental regulations requiring natural science competences; organisation and management of scientific museums, aquariums, botanical gardens and natural parks; activities related to the naturalistic and environmental education (preparation of educational tools, even multimedia ones for schools, universities, natural museums, parks, aquariums and botanical gardens).

Skills:

Thanks to the acquired competences, graduates of this Course may practice, from the first employment after the end of the course, the profession of Botanist, Zoologist, and Ecologist.

They will be able to plan, illustrate and interpret field and laboratory activities, selecting the most appropriate procedures for elaborating, analysing and synthesizing data, for impact evaluation studies (flora, fauna) and assessment; preparation of (biological and a-biological) thematic maps through the use of GIS and databases. They will be able to develop methods and techniques of territorial survey.

Professional opportunities

In the public sector:

Universities and Research agencies;

Environmental management and services, Ministries, local authorities and other public bodies;

National and Regional environment protection agencies;

National Healthcare Institutions, experimental stations, archaeological superintendence.

In the private sector, graduates of the course may carry out their activity in various types of companies and professional practices dealing with environmental issues.

Graduates in possession of the credits required by current legislation may participate in the admission tests to training courses for teaching staff for secondary schools of first and second degree.

Further occupational areas consist of: - museum activities in scientific or naturalistic museums; - scientific dissemination activities and scientific journalism; - design of natural parks and plans for Park Plans; - management of protected areas.

Final examination features

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)

The final examination consists of the preparation of an original written dissertation, consistent with the Course objectives, prepared under the guidance of a supervisor (usually a professor of the course) and of the presentation of the dissertation to the examining Board (Educational regulations of the Degree Course, approved on January, 31, 2017).

Subjects 1 ° year	CFU	Sem.	Val.	SSD	TAF
19792 - APPLIED STATISTICS FOR SCIENTIFIC RESEARCH <i>Cilluffo(RD)</i>	6	1	V	SECS-S/02	B
20538 - BIOGEOGRAPHY - INTEGRATED COURSE	9	1	V		
- <i>GEOBOTANY</i> <i>Ilardi(PA)</i>	6	1		BIO/03	B
- <i>ZOOGEOGRAPHY</i> <i>Marrone(PO)</i>	3	1		BIO/05	C
22410 - CLIMATE CHANGE AND VOLCANIC RISK <i>Parello(PO)</i>	6	1	V	GEO/08	B
22413 - ZOOLOGY AND ENTOMOLOGY APPLICATIONS - INTEGRATED COURSE	12	1	V		
- <i>ENTOMOLOGY APPLICATIONS</i> <i>Manachini(PA)</i>	6	1		AGR/11	B
- <i>ZOOLOGY APPLICATIONS</i> <i>Lo Valvo(PA)</i>	6	1		BIO/05	B
20691 - ENGLISH LANGUAGE SKILLS - EQUIVALENT TO LEVEL B2	3	1	G		F
22549 - APPLIED PALAEOLOGY <i>Incarbona(PA)</i>	6	2	V	GEO/01	B
19977 - ECOLOGY APPLICATIONS <i>Gianguzza(PA)</i>	6	2	V	BIO/07	B
22414 - HUMAN BIOLOGY AND BIODIVERSITY <i>Dumas(RU)</i>	6	2	V	BIO/08	B
Free subjects	6				D
	60				

Subjects 2 ° year	CFU	Sem.	Val.	SSD	TAF
22411 - BIOGEOCHEMISTRY - INTEGRATED COURSE	6	1	V		
- <i>BIOGEOCHEMICAL CYCLES</i> <i>Calabrese(PA)</i>	3	1		GEO/08	C
- <i>GEOMICROBIOLOGY</i> <i>Quatrini(PA)</i>	3	1		BIO/19	C
20536 - SOIL ECO-SYSTEMIC SERVICES <i>Scalenghe(PA)</i>	6	1	V	AGR/14	B
22415 - VULNERABILITY OF NATURAL SYSTEMS <i>Signa(PA)</i>	6	1	V	BIO/07	B
13121 - PRACTICE	3	1	G		F
22470 - SCIENTIFIC COMMUNICATION AND DISSEMINATION	3	1	G		F
22412 - GEOLOGICAL RISKS AND RESOURCES - INTEGRATED COURSE	6	2	V		
- <i>GEORESOURCES</i> <i>Agnesi(PQ)</i>	3	2		GEO/04	C
- <i>GEORISKS</i> <i>Rotigliano(PO)</i>	3	2		GEO/04	C
05917 - FINAL EXAMINATION	24	2	G		E
Free subjects II	6				D
	60				

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