UNIVERSITA' DEGLI STUDI DI MILANO
PROGRAMME DESCRIPTION - ACADEMIC YEAR 2019/20
BACHELOR
Natural Sciences (Classe L-32)
enrolled from 2018/2019 academic year

HEADING	
Degree classification - Denomination and code:	L-32 Environmental sciences
Degree title:	Dottore
Length of course:	3 years
Total number of credits required to complete programme:	180
Years of course currently available:	1st , 2nd
Access procedures:	Open, subject to completion of self-assessment test prior to enrolment
Course code:	F66

PERSONS/ROLES

Head of Interdepartmental Study Programme

Prof.ssa Lucia Angiolini

Degree Course Coordinator

Prof.ssa Lucia Angiolini

Tutors - Faculty

Cristina Bonza, Giulio Borghini, Morena Casartelli, Guglielmina Diolaiuti, Claudio Olivari, Roberta Pennati, Diego Rubolini, Paolo Tremolada

Degree Course website

http://www.ccdnat.unimi.it/

via Mangiagalli 34 (primo piano) Email: lucia.angiolini@unimi.it

via Mangiagalli 34 (piano terra) per gli orari dello Sportello Didattica consultare il sito del Collegio Didattico Interdipartimentale www.ccdnat.unimi.it Email: cclsn@unimi.it

via Celoria 18 Phone 199188128 (numero a pagamento) per gli orari dello sportello consultare il sito www.unimi.it http://www.unimi.it/studenti/segreterie/

www.unimi.it (scegli la Statale)

CHARACTERISTICS OF DEGREE PROGRAMME

General and specific learning objectives

Aim of this course is to offer a balanced synthesys of knowledge and methods both in the biologic area and in the earth-sciences, which are the bases for professional activities concerning the interpretation and the protection of the recent natural world and its past evolution, focusing specifically on the correlation between organisms, substrate and environment.

The course is aimed to provide the students with an exhaustive learning of the natural world as well as the experimentation of the scientific method for the study of the biologic components, their mutual interactions, and their interactions with the physical environment; it will prepare graduates which will be able to correctly interpret both the biotic and abiotic factors of the environment and their interactions. The studies are widely multidisciplinary, ranging from biology to geology and to geography, with robust bases of chemistry and physics.

Professional profile and employment opportunities

The course is aimed to prepare graduates who could have access to works with technical and professional functions in surveys and in the analysis, classification, preservation and recovery of the biotic components of the aquatic and terrestrial ecosystems. These activities could be carried out in parks, natural reserves, museums, and teaching institutions. Graduates in this discipline could also be employed in the analysis and monitoring of systems and biological processes both in natural settings and in anthropic ones, in order to preserve the natural environment, to check and ameliorate its quality, to identify and protect the natural and cultural heritage.

Notes

In order to get their degree, students are required to certify their knowledge of the English language at the B1 level. This level can be certified in one of the following ways:

* by submitting their language certificate, taken no more than 3 years before its submittal and attesting a B1 o higher level

(for the list of the language certificates which are accepted by the University of Milan, please refer to the website: http://www.unimi.it/studenti/100312.htm).
Students can submit their language certificate during the immatriculation procedure or send it to the Language Centre of the University of Milan (SLAM) via the Infostudente service.
* by sitting the placement test run by SLAM, during the first year exclusively, from September to December. Should they not pass the Placement Test, students will have to attend the English language course organized by SLAM. All students who do not have a valid language certificate must sit the Placement Test. Those students who do not sit the Placement test by December or do not pass the end of course test in one of the 6 attempts granted will have to get a language certificate outside the University of Milan within their degree.

EXPERIENCE OF STUDY ABROAD AS PART OF THE TRAINING PROGRAM

The University of Milan supports the international mobility of its students, offering them the opportunity to spend periods of study and training abroad, a unique opportunity to enrich their curriculum in an international context.

How to participate in Erasmus mobility programs

To gain access to mobility programs for study purposes, lasting 3-12 months, the enrolled students of the University of Milan must attend a public selection that starts usually around the month of February each year through the presentation of specific competition announcements, which contain information on available destinations, respective duration of the mobility, requirements and deadlines for submitting the online application.

The selection, aimed at evaluating the proposed study abroad program of the candidate, knowledge of a foreign language, especially when this is a preferential requirement, and the motivations behind the request, is performed by specially constituted commissions.

Each year, before the expiry of the competition announcements, the University organises information sessions for the specific study course or groups of study courses, in order to illustrate to students the opportunities and participation rules.

To finance stays abroad under the Erasmus + program, the European Union assigns to the selected students a scholarship that - while not covering the full cost of living abroad - is a useful contribution for additional costs as travel costs or greater cost of living in the country of destination.

The monthly amount of the communitarian scholarship is established annually at national level; additional contributions may be provided to students with disabilities.

In order to enable students in economic disadvantaged conditions to participate in Erasmus+ program, the University of Milan assigns further additional contributions; amount of this contributions and criteria for assigning them are established from year to year.

The University of Milan promotes the linguistic preparation of students selected for mobility programs, organising every year intensive courses in the following languages: English, French, German and Spanish.

The University in order to facilitate the organisation of the stay abroad and to guide students in choosing their destination offers a specific support service.

More information in Italian are available on www.unimi.it > Studenti > Studiare all¿estero > Erasmus+

Per assistenza rivolgersi a:
Ufficio Mobilità internazionale e per la Promozione internazionale
via Festa del Perdono 7 (piano terra)
Tel. 02 503 13501-12589-13495-13502
Indirizzo di posta elettronica: mobility.out@unimi.it
Orario sportello: Lunedì-venerdì 9 – 12

1st COURSE YEAR Core/compulsory courses/activities common

Learning activity	Ects	Sector
Botany	12	(6) BIO/02, (6) BIO/01
Chemistry	10	CHIM/03, CHIM/06
English assessment B1 (2 ECTS)	2	L-LIN/12
Fundamental of mathematics and statistics	12	MAT/09, MAT/01, MAT/02, MAT/03, MAT/04, MAT/05, MAT/06, MAT/07, MAT/08

General and environmental biology with elements of Histology		8	BIO/06
Physical geography and cartography		8	GEO/04
Physics		6	FIS/08, FIS/07, FIS/06, FIS/05, FIS/04, FIS/03, FIS/02, FIS/01
Zoology		12	BIO/05
	Total compulsory credits	70	

2nd COURSE YEAR Core/compulsory courses/activities common

Learning activity		Ects	Sector
Comparative anatomy		7	BIO/06, BIO/16
Ecology and behavioural ecology		15	BIO/07
General and environmental physiology		8	BIO/09
Genetics		8	BIO/18
Geology		6	GEO/02
Mineralogy		6	GEO/06
Paleontology		6	GEO/01
Petrography		6	GEO/07
	Total compulsory credits	62	

Elective courses

3rd COURSE YEAR (available as of academic year 2020/21) Core/compulsory courses/activities common

Learning activity		Ects	Sector
Evolutionary biology		6	BIO/19, BIO/18, BIO/05, BIO/02
Final exam		4	ND
Geographic Information Systems		6	INF/01
	Total compulsory credits	16	

Elective courses

Anthropology and archaeological excavation	6	BIO/08
Climatology	6	GEO/04
Developmental biology	6	BIO/06, BIO/01
Environmental microbiology	6	BIO/19
Freshwater biology	6	BIO/05
General entomology	6	AGR/11
Geobotany	6	BIO/02
Geomorphology	6	GEO/04
Geopedology	6	GEO/04
Mineral resources and environmental interactions	6	GEO/09
Nature conservation	6	BIO/07
Paleontology heritage and excavations	6	GEO/01
Plant physiology	6	BIO/04
Quaternary climate changes	6	GEO/02
Vascular plants	6	BIO/02, BIO/01
Vertebrate zoology	6	BIO/05