UNIVERSITÀ
DEGLI STUDI DI TRIESTE

Area dei Servizi Istituzionali
Settore Servizi agli studenti e alla didattica
Ufficio Dottorati di ricerca

ATTACHMENT 1 LAST REVISED 21/05/2020

PhD IN ENVIRONMENTAL LIFE SCIENCES (under the agreement with the University of Udine) OVERVIEW

IN BRIEF		
Lines of research covered by the ERC panels	PE10_4	Terrestrial ecology, land cover change
	PE10_5	Geology, tectonics, volcanology
	PE10_9	Biogeochemistry, biogeochemical cycles, environmental chemistry
	PE10_13	Soil science
	LS2	Genetics, Genomics, Bioinformatics and Systems Biology
	LS8_1	Ecology (theoretical and experimental; population, species and community level)
	LS8_2	Population biology, population dynamics, population genetics
	LS8_4	Biodiversity, conservation biology, conservation genetics, invasion biology
	LS8_5	Evolutionary biology: evolutionary ecology and genetics, co-evolution
	LS8_8	Environmental and marine biology
	LS8_9	Environmental toxicology at the population and ecosystems level
	LS8_10	Microbial ecology and evolution
	LS9_3	Agriculture related to animal husbandry, dairying, livestock raising
	LS9_5	Agriculture related to crop production, soil biology and cultivation, applied plant biology
Administrative location	University of Trieste	
Organizing Department	Department of Life Sciences	
Partner University	University of Udine	
Partner University Department	Department of Agricultural, Food, Animal and Environmental Sciences	
Duration	3 years	
Attendance abroad that entitles to a scholarship increase - min. max. of months for each PhD student (over 3 years)	0 - 18	
Official language	Italian	
Language (alternative to Italian) partially used in PhD activities	Part of the teaching program, and particularly part of the seminars, will be in English. Students can present annual reports and the final thesis in English.	
Subject Areas *(in alphabetical code order)*	04	EARTH SCIENCES
	05	BIOLOGY
	07	AGRICULTURAL AND VETERINARY SCIENCES
Macro Research Fields *(in alphabetical code order)*	04/A	EARTH SCIENCES
	05/A	PLANT BIOLOGY
	05/B	ANIMAL BIOLOGY AND ANTHROPOLOGY
	05/C	ECOLOGY

	05/G	EXPERIMENTAL AND CLINICAL PHARMACOLOGY
	05/I	GENETICS AND MICROBIOLOGY
	07/B	AGRICULTURAL AND FOREST SYSTEMS
	07/C	AGRICULTURAL, FOREST AND BIOSYSTEMS ENGINEERING
	07/E	AGRICULTURAL CHEMISTRY, AGRICULTURAL GENETICS AND PEDOLOGY
Scientific Disciplinary Sectors *(in alphabetical code order)*	AGR/02	AGRONOMY AND FIELD CROPS
	AGR/05	FOREST MANAGEMENT AND SILVICULTURE
	AGR/08	AGRICORULTAL HYDRAULICS AND WATERSHED PROTECTION
	AGR/10	RURAL BUILDINGS AND AGRO-FOREST LAND PLANNING
	AGR/13	AGRICULTURAL CHEMISTRY
	BIO/01	GENERAL BOTANY
	BIO/02	SYSTEMATIC BOTANY
	BIO/03	ENVIRONMENTAL AND APPLIED BOTANY
	BIO/04	PLANT PHYSIOLOGY
	BIO/05	ZOOLOGY
	BIO/07	ECOLOGY
	BIO/14	PHARMACOLOGY
	BIO/18	GENETICS
	GEO/08	GEOCHEMISTRY AND VOLCANOLOGY
Domain European Research Council	LS	LIFE SCIENCES
	PE	PHYSICAL SCIENCES AND ENGINEERING
ERC Panels	LS2	GENETICS, GENOMICS, BIOINFORMATICS AND SYSTEMS BIOLOGY: GENETICS, POPULATION GENETICS, MOLECULAR GENETICS, GENOMICS, TRANSCRIPTOMICS, PROTEOMICS, METABOLOMICS, BIOINFORMATICS, COMPUTATIONAL BIOLOGY, BIOSTATISTICS, BIOLOGICAL MODELLING AND SIMULATION, SYSTEMS BIOLOGY, GENETIC EPIDEMIOLOGY
	LS8	EVOLUTIONARY, POPULATION AND ENVIRONMENTAL BIOLOGY: EVOLUTION, ECOLOGY, ANIMAL BEHAVIOUR, POPULATION BIOLOGY, BIODIVERSITY, BIOGEOGRAPHY, MARINE BIOLOGY, ECOTOXICOLOGY, PROKARYOTIC BIOLOGY
	LS9	APPLIED LIFE SCIENCES AND BIOTECHNOLOGY: AGRICULTURAL, ANIMAL, FISHERY, FORESTRY AND FOOD SCIENCES; BIOTECHNOLOGY, CHEMICAL BIOLOGY, GENETIC ENGINEERING, SYNTHETIC BIOLOGY, INDUSTRIAL BIOSCIENCES; ENVIRONMENTAL BIOTECHNOLOGY AND REMEDIATION
	PE10	EARTH SYSTEM SCIENCE: PHYSICAL GEOGRAPHY, GEOLOGY, GEOPHYSICS, ATMOSPHERIC SCIENCES, OCEANOGRAPHY, CLIMATOLOGY, ECOLOGY, GLOBAL ENVIRONMENTAL CHANGE, BIOGEOCHEMICAL CYCLES, NATURAL RESOURCES MANAGEMENT

WHO'S WHO	
In partnership with the University of Udine	
Chair	Prof. Giorgio Alberti – Department of Agricultural, Food, Animal and Environmental Sciences - University of Udine – phone N.+39 0432 558608; fax +39 0432 558603; email giorgio.alberti@uniud.it
Vice	Prof. Antonio Terlizzi – Department of Life Sciences – University of Trieste - phone +39 040 5588829; email aterlizzi@units.it
PhD Academic Board	List of members
Web site	https://sites.google.com/site/phdenvlifesci/home

email	dottorato.ambientevita@units.it
Course description and objectives	The PhD Course aims to prepare well-qualified scientists able to critically manage the implementation of EU and national regulations concerning with environmental analysis and to autonoumously develop research activities in the field of environment. The course is focused on both theorethical and experimental activities. It includes the following ERC research areas: Terrestrial ecology, land cover change (PE10_4); Biogeochemistry, biogeochemical cycles, environmental chemistry (PE10_9); Soil science (PE10_13); Ecology (theoretical and experimental; population, species and community level) (LS8_1); Biodiversity, conservation biology, conservation genetics, invasion biology (LS8_4); Evolutionary biology: evolutionary ecology and genetics, co-evolution (LS8_5); Environmental and marine biology (LS8_8); Environmental toxicology at the population and ecosystems level (LS8_9); Microbial ecology and evolution (LS8_10); Agriculture related to animal husbandry, dairying, livestock raising (LS9_3); Agriculture related to crop production, soil biology and cultivation, applied plant biology (LS9_5); Population biology, population dynamics, population genetics (LS8_2); Genetics, Genomics, Bioinformatics and Systems Biology (LS2).
Job placement opportunities	Possible job placements are mainly in the environmental research field at national or international universities or research institutions, both in marine and terrestrial area of interest. The considerable interdisciplinary approach characteristic of this PhD course will allow the training of new and complete professional figures that will afford multidisciplinary scientific issues. Methodologies learnt during the PhD course will apply to complex themes like: effects of global change on different natural ecosystems (from deep ocean to high mountains) or man-managed ones (agro-ecosystems, forestry, and so on); the biodiversity role in maintaining ecosystem efficiency and goods and service production; the onset of new pollution sources, the appearance of new pollutants and their effects on organisms, the management of new productive close – loop systems, the digitalization of environmental data to spreading them to the public for stimulating a general increase in the ecological awareness.
Main cooperating international Universities and Research Institutions	1 Hopkins Marine Station, Stanford University, USA 2 Department of Environmental Sciences, Zhejiand University, China 3 Israel Oceanographic and Limnological Research (IOLR), Israel 4 Institute of Botany, University of Innsbruck, Austria 5 Los Alamos National Laboratory, New Mexico USA