UNIVERSITÀ
DEGLI STUDI DI TRIESTE

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

ATTACHMENT 1 LAST REVISED 12/05/2016

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

IN BRIEF		
Lines of research	1	Ecology and ecophysiology of marine, fresh water, terrestrial and agricultural ecosystems
	2	Global change biology and management of natural and agricultural systems
	3	Biodiversity informatics, genetics and conservation
	4	Ecotoxicology and bioremediation
Administrative location	University of Trieste	
Organizing Department	Department of Life Sciences	
Partner University	University of Udine	
Partner University Department	Department of Agricultural and Environmental Sciences Department of Chemistry, Physics and Environment	
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	A relevant part of seminars will be in English. Several offered teaching courses will be in English. PhD students can present their partial and final results in English. They are encouraged to write their PhD theses in English.	
Subject Areas *(in alphabetical code order)*	03	CHEMISTRY
	04	EARTH SCIENCES
	05	BIOLOGY
	07	AGRICULTURAL AND VETERINARY SCIENCES
Macro Research Fields *(in alphabetical code order)*	03/B	INORGANIC CHEMISTRY AND APPLIED TECHNOLOGIES
	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/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
	CHIM/03	GENERAL AND INORGANIC CHEMISTRY
	GEO/08	GEOCHEMISTRY AND VOLCANOLOGY
Domain European Research Council	LS	LIFE SCIENCES
	PE	PHYSICAL SCIENCES AND ENGINEERING
ERC Panels	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
	PE4	PHYSICAL AND ANALYTICAL CHEMICAL SCIENCES: ANALYTICAL CHEMISTRY, CHEMICAL THEORY, PHYSICAL CHEMISTRY/CHEMICAL PHYSICS

WHO'S WHO	
Chair	Prof. Serena Fonda – Department of Life Sciences - University of Trieste – Via L. Giorgeri, 10 – phone N. 040.558.8829/2937; fax 040.558.2011; email s.fonda@units.it
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Course description and objectives	The PhD program, aims to train highly qualified personnel capable of analytically managing the implementation of national and European Union guidelines regarding the environmental analysis, deepen the methodological aspects related to these issues, and to independently design and carry out environmental researches in a multidisciplinary view. It is structured to increasingly focus the scientific training of the students from the general and theoretical to the experimental aspects. The name of the doctorate is closely linked to the research topics of the members of the teacher's council. They are linked to the following ERC areas: Terrestrial ecology, land cover change (PE10_4); Biogeochemistry, biogeochemical cycles, environmental chemistry (PE10_9); Ecology (LS8_1); Biodiversity, comparative biology (LS8_4); Conservation biology, ecology, genetics (LS8_5); Environmental and marine biology (LS8_8); Environmental toxicology (LS8_9), Prokaryotic biology (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), Genetics, Population biology, population dynamics, population genetics, plant-animal interactions (LS2/LS8_2), Genomics, transcriptomics, comparative genomics, functional genomics (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 to 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 good 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 Scripps Institution of Oceanography, University of California, San Diego, USA 2 College of Environmental and Natural Resources Sciences, Zhejiand University, Hangzhou, China 3 Tel Hai College, Upper Galilee, Israel 4 Institute of Botany, University of Innsbruck, Austria 5 Los Alamos National Laboratory, New Mexico USA