







LAST REVISED 04/03/2013

DOCTORAL COURSE IN ENVIRONMENTAL BIOLOGY

NOTE: This attachment provides only partial information. Exhaustive information, including how to register for the selection, is published in the Admission Announcement posted in the web page http://www2.units.it/dottorati/ >> Admission Announcement.

Deadline for application

14 March 2013 AMENDED ON. 04.03.2012:

old date 11 March 2013 new date 14 March 2013

GENERAL DESCRIPTION

SUBJECT AREAS COVERED BY THE COURSE:

main area: **BIO/07**

BIO/01: BIO/02: BIO/03: BIO/04: BIO/05: BIO/06: BIO/09: BIO/10: BIO/11: other areas:

BIO/18; BIO/19; CHIM/01; CHIM/12

RESEARCH FIELDS:

- 1. Environmental Biomonitoring
- 2. Nature Conservation
- 3. Ecophysiology and ecotoxicology
- 4. Ecosystem functioning
- 5. Environmental Genomics
- 6. Production activities and resource sustainability

Location: Trieste

ORGANIZING DEPARTMENT: Dip. di Scienze della Vita

DURATION: 3 years

MAXIMUM NUMBER OF MONTHS TO BE SPENT ABROAD DURING THE THIRD YEAR: 6

OFFICIAL LANGUAGE OF THE COURSE: Italian

ADMISSION INFORMATION

NUMBER OF PLACES AVAILABLE:1 SCHOLARSHIPS: 1

FUNDING BODY/IES (preceded by the scholarship code):

ACADEMIC QUALIFICATIONS REQUIRED: See Announcement (Art. 1.1 - Requirements) DEADLINE FOR COMPLETION OF DEGREE: 14.03.2013

Amended on 04/03/2013: old date 11.03.2013 new date 14.03.2013

ASSESSMENT CRITERIA: qualifications + research project

Legge 241/1990 - Responsabile del procedimento: Elena Ferraro

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-	MAXIMUM FINAL SCORE: the final score is based on the total sum of marks obtained in the project assessment plus the points given for qualifications and publications:	100/100
	publications:	70/100
-	PROJECT SCORE/RELATIVE WEIGHT/DOCUMENTS REQUIRED:	60
	NB: the research project must be written in Italian or in English	
	documents required for the submission of the Project:	
	- "DIANET research form" signed by the applicant and by the scientific tutor;	
	- "DIANET Commitment to accept the candidate form" signed by the legal	
	representative or proxy of the other research institutions (where applicable);	
	MINIMUM PROJECT SCORE:	40/60
-	MAXIMUM NUMBER OF POINTS AWARDED FOR QUALIFICATIONS +	40
	PUBLICATIONS:QUALIFICATIONS REQUIRED/RELATIVE WEIGHT:	40
	- Art. 11 Rules for Doctorates: all candidates are required to present the following documents, regardless of whether or not a score is assigned to them (see	
	below):	
	a. a detailed curriculum vitae et studiorum: 5/40 to 25/40	
	b. a copy of the Master's degree thesis (experimental): 5/40 to 15/40	
	For students with a degree awarded by a non-Italian university, an abstract of	
	the thesis in English or Italian is admissible.	
	- Qualifications List (unless this form is submitted, qualifications and publications	
	CANNOT be assessed by the Examining Board)	
	MINIMUM SCORE REQUIRED FOR QUALIFICATIONS/PUBLICATIONS:	30/40
	ABSOLUTE DEADLINE FOR RECEIVING THE CERTIFICATES AND THE	
	PROJECT:1	4.03.2013
	Amended on 04/03/2013: old date 11.03.2013 new date 14.03.2013	

ADDRESSES TO WHICH THE CERTIFICATES AND THE PROJECT SHOULD BE

directly to the "Segreteria Dottorati di Ricerca" (i.e. Doctoral Registrar's Office), Piazzale Europa, 1 - CAP 34127-TRIESTE - main University building (on campus) ("edificio A") - right-hand wing - 2nd floor, during office opening hours: All the documents must be received within the deadline, which is 14 March 2013 Amended on 04/03/2013: old date 11 March 2013 new date 14 March 2013 The date on the postmark does not prove respect of the deadline.

	Reservation tickets	Opening hours
Monday	2.45pm - 3.45pm	3.15pm - 4.15pm / until ticketholders have been seen
Tuesday	8.30am - 10.30am	9.00am - 11.00am / until ticketholders have been seen
Wednesday	8.30am -	9.00am - 11.00am / until ticketholders have been

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	10.30am	seen	
Thursday	8.30am - 10.30am	9.00am - 11.00am / until ticketholders have been seen	
Friday	CLOSED		
Saturday	CLOSED		

- by registered letter with notification of receipt to the Ripartizione Dottorati di Ricerca - Piazzale Europa,1 - 34127-TRIESTE). (please write on the envelope: "Application for the entrance examination to the Ph.D. Programme in";
- by private courier (please request a receipt). Applications must be delivered to the main university building between 8.00am and 1.00pm Mondays to Fridays; CEFR LEVEL REQUIRED (ITALIAN OR ENGLISH): B2

CONTACT INFORMATION

CHAIR: Prof. Alberto PALLAVICINI - Dipartimento di Scienze della Vita - Via Giorgieri, 5 ed.Q -Università degli Studi di Trieste - phone +39 040 558.8736 fax 040.810860 email pallavic@units.it

WEB SITE: http://www2.units.it/~biomonitor/

EDUCATIONAL AIMS AND RESEARCH TOPICS: This Ph.D. course, resulting from the transformation of the former PhD course in the "Methodology of bio-monitoring of environmental alteration", which has kept the Council of teachers, aims at training highly qualified personnel capable of managing critically the implementation of national or EU guidelines, regarding the environmental analysis, deepen the methodological aspects of such issues, and plan and carry out research independently of environmental monitoring by means of organisms, in the framework of a multidisciplinary view of issues. It is structured to progressively focus the scientific preparation of doctoral candidates from general and theoretical to the experimental ones. An attendance of theoretical courses, journal clubs and seminars, is foreseen for a total of 16 credits of educational activity in the first year, 8 credits 4 credits in the second and third, to put the graduate students in the position to understand the issues environmental biology in all its many aspects by integrating data from different sources. Simultaneously, there are plans to conduct a research activity, according to an individual plan discussed and agreed with the Council of teachers. During the first year the PhD student defines the topic of research, in the second year he/she steps into the experimental aspect and in the third year he/she will complete its original research, completing the thesis. These training activities have as their ultimate goal the establishment of a figure with high professional skills suitable to be taken by institutions devoted to environmental control and protection (eg, Regional Environmental Agencies), and / or to be inserted into programs research of various Italian and foreign research institutes in various capacities that deal with both land and marine environment. For example, candidates may undertake research on these topics, both terrestrial and marine environments:

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- 1) the effects of major stressors, abiotic and biotic, on humans, animals, plants and their interactions at the cellular level of organisms and ecosystems;
- 2) morphological changes, physiological, genetic or induced by environmental stressors in terms of organism, population and community,
- 3) changes at the community level and structure of the landscape due to fragmentation of ecosystems, resource constraints and environmental changes;
- 4) biogeochemical cycles and their perturbations,
- 5) concentrations of pollutants in the atmosphere, hydrosphere, pedosphere and their variability in time and space;
- 6) bioaccumulation and biomagnification of pollutants in different components of ecosystems;
- 7) network structure and their trophic efficiency,
- 8) effects of past and future climate change on organisms, communities and ecosystems;
- 9) data processing and information through innovative techniques (meta data analysis, data mining, fuzzy set analysis, neural networks, cellular automata, remote sensing).

Pre-requisite of research projects submitted by graduate students is, however, the presence of an innovative technology component in one of many possible areas of Environmental Biology.