

DOCTORAL COURSE IN BIOLOGIA AMBIENTALE

GENERAL DESCRIPTION

SUBJECT AREAS:

- main area: BIO/07
- other areas: BIO/01; BIO/02; BIO/03; BIO/04; BIO/05; BIO/18; CHIM/12

FIELDS OF RESEARCH:

1. Environmental Biomonitoring
2. Nature Conservation
3. Ecophysiology and ecotoxicology
4. Ecosystem functioning
5. Environmental Genomics

ORGANIZING DEPARTMENT: Dip. Di Scienze della Vita

PROGRAMME LENGTH IN YEARS: 3

MAXIMUM PERIOD OF STUDY ABROAD IN MONTHS: 6

OFFICIAL LANGUAGE OF THE SCHOOL: italian

ADMISSION INFORMATION AND REQUIREMENTS

PLACES AVAILABLE: 6

SCHOLARSHIPS: 3

FUNDING BODIES:

- Università degli Studi di Trieste+Dip. Scienze della Vita funded by ex Dip. Biologia (finalizzata al Progetto "*Effetti di inquinanti aerodiffusi sulla simbiosi lichenica*") 1
- Università degli Studi di Trieste+Dip. Scienze della Vita funded by OGS (finalizzata al Progetto "*Cicli biogeochimici nei sedimenti marini*") 1
- Università degli Studi di Trieste+Dip. Scienze della Vita funded by Regione Friuli Venezia Giulia – Direzione centrale risorse agricole, naturali, forestali e montagna (finalizzata al Progetto "*Analisi e gestione informatica di sequenze genomiche e trascritte per la valutazione dello stress biotico in *Mytilus galloprovincialis**") 1

Conditional scholarships ("borse di studio finalizzate") require students to do their research on pre-assigned topics.

NON-FUNDED PLACES

- research grant-holders: 1
- grant-holders funded by the Italian Ministry of Foreign Affairs permitted to sit the entrance examination in the country of origin 1
- non-EU citizens resident abroad 1
- non-EU citizens resident abroad with the Italian Ministry of Foreign Affairs authorization required to sit the entrance examination in Trieste 1

ACADEMIC QUALIFICATION REQUIRED: see Announcement (art. 1-Requirements)

DEADLINE FOR COMPLETION OF DEGREE BEFORE APPLICATION: 02.11.2009

ADMISSION REQUIREMENTS:

qualifications + written examination + oral interview.

FINAL SCORE: the final score is obtained by combining the scores of the written and oral part of the examination and of the score attributed to the qualifications: 120/120

FINAL SCORE (MINIMUM REQUIRED): 72/120

SCORE ATTRIBUTED TO THE QUALIFICATIONS: 10/10

QUALIFICATIONS REQUIRED (RELATIVE WEIGHT):

Art. 11 University Rules for Doctorates:

- a. a detailed curriculum vitae et studiorum;
- b. a copy of the master's degree thesis or an abstract in English or in Italian.
A detailed research proposal may be required.

as well as

1. Scholarly articles published in journals with impact factor: max 1.8
2. Scholarly articles published in journals with impact factor: max 1.2
3. Abstracts of presentations published in proceedings: max 0.6
4. Abstracts of posters: max 0.3
5. Popularizing publications: max 0.1
6. Degree score: max 2.4
7. Post-lauream research activities: max 3.6

MINIMUM SCORE REQUIRED FOR THE QUALIFICATIONS: no

WRITTEN EXAMINATION SCORE (EXPRESSED AS A PERCENTAGE): 60/60

MINIMUM SCORE REQUIRED FOR THE WRITTEN EXAMINATION : 42/60

ORAL INTERVIEW SCORE (EXPRESSED AS A PERCENTAGE): 50/50

MINIMUM SCORE REQUIRED FOR THE ORAL INTERVIEW: 30/50
DEADLINE FOR RECEIVING CERTIFICATES / PUBLICATIONS: 04.11.2009
ADDRESS TO WHICH CERTIFICATES / PUBLICATIONS SHOULD BE SENT: to be handed
in at the written test.

EXAMINATION SCHEDULE:

- WRITTEN EXAMINATION: 04.11.2009 at 09.30 a.m. ex Dip. di Biologia dell'Università degli Studi di Trieste, – Edificio M – Aula A – Via L. Giorgeri, 10 - TRIESTE
POSSIBLE ALTERNATIVE LANGUAGE TO THE ITALIAN FOR THE WRITTEN EXAMINATION: English
- ORAL INTERVIEW: 05.11.2009 at 09.30 a.m. ex Dip. di Biologia dell'Università degli Studi di Trieste, – Edificio M – Aula A – Via L. Giorgeri, 10 - TRIESTE
LANGUAGE/S OTHER THAN THE ITALIAN FOR THE ORAL INTERVIEW: English, French, Spanish

CONTACT INFORMATION

CHAIR: Prof. Mauro TRETACH - Dipartimento di Scienze della Vita - Università degli Studi di Trieste
- tel. 040/558.3886 fax 040/568855 e-mail tretach@units.it

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

OVERVIEW: This PhD course is aimed at training highly qualified experts capable of planning and carrying out pure and applied research in environmental biology, dealing with the enforcement of national and EU directives concerning environmental analysis and biomonitoring, and exploring their methodological implications with a interdisciplinary and critical approach.

PhD students increasingly focus on general and theoretical issues by attending courses, journal clubs and seminars. They carry out their experimental research in conformity to an individual research plan agreed with the Academic Board. The learning curriculum requires 16 credits for the first year, 8 credits for the second year and 4 credits for the third year. The PhD student sets his research topic at the beginning of the first year, explores the experimental implications during the second year and accomplishes his original research by writing his thesis during the third year. These learning and research activities are aimed at educating and training PhD researchers with the competencies required by environmental control and protection institutions (e.g. the local agencies for the environment) and/or to take part in research programmes.

Applicants will prove to have basic knowledge of the following topics: 1) biogeochemical cycles and their perturbations; 2) effects of the main pollutants on man, animals, plants and their transfer through the ecosystems; 3) bio-accumulation and bio-amplification of pollutants; 4) morphological, physiological or genetic changes produced by environmental stressors on organisms, populations and communities; 5) changes at community and landscape level induced by ecosystem perturbations; 6) use of organisms as biomonitors of environmental changes.