PhD Course in Biology and Applied Science (DOT197K79Z)

Coordinator
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CUN Area
Area – 01 - Mathematics and Informatics; Area – 03 – Chemistry; Area – 05 – Biology; Area 08 - Civil Engineering and Architecture; Area – 09 - Industrial and Information Engineering; Area – 13 - Economics and Statistics

E.R.C.
PE1 - PE4 - PE5 - PE6 - PE8 - LS1 - LS2 - LS3 - LS4 - LS8 - LS9 – SH1

Overview
The course aims at preparing highly qualified intersectoral scientific researchers in the field of biology and technologies related to the security of civil structures and infrastructures, security of the information, data analysis, and the processing of information. It is divided into two curricula: Biology and Applied Sciences.

Website
http://dipbiter.unimol.it/dottoratobeat/

Duration
01/01/2023 – 31/12/2025

Requirements for admission to the competition
All specialized or master's degrees, or degrees of the system before that introduced with the D.M. 509/1999.
For candidates who have acquired the title abroad, the latter must have equivalent characteristics of a second-level degree to those indicated above.

Assessable qualifications and related score

<table>
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<tr>
<th>Positions with scholarships Project-National Biodiversity Future Center – NBFC CUP H73C22000300001</th>
<th>1</th>
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<tbody>
<tr>
<td>Topic: “Meta-data dissection through bioinformatics-based approaches to characterize rhizosphere biodiversity of tree species in urban areas”</td>
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<tr>
<td>Curriculum: Biology</td>
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<td>Term abroad of 6 months at an institution to be defined</td>
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TOTAL Positions with scholarships 1

List of assessable qualifications (score up to a maximum of 25/100):
- **curriculum vitae et studiorum**;
- graduation mark; in the case of participation in the selection before graduation, the weighted average marks of the passed exams;
- other educational qualifications which can be deduced from the curriculum vitae et studiorum: specialization diplomas; attendance of post-graduate specialization courses; documented research activity at universities and research centers; prizes and awards obtained during the study; participation in Erasmus programs; internship and abroad activities; work experiences, internships and training in companies; I and II level masters; research grants
- maximum of three peer-reviewed scientific publications and a maximum of five participations in national and international conferences with written contributions, oral presentations, or posters.

Thematic areas of the research project proposals and the interview

Please note that the project proposal illustrated in the report, (annex 5), prepared for the competition, is not necessarily the project that will be carried out during the PhD program. If admitted, the research project that will in fact be carried out will be subsequently defined and approved by the Program Faculty Board after the start of the PhD Program.

Research proposal (score up to a maximum of 25/100):
Candidates are required to prepare a research proposal, according to the template (see annex n°5) to be submitted along with the application.

The project proposal, coherent with its own second-level degree, must be written on the topic “Meta-data dissection through bioinformatics-based approaches to characterize rhizosphere biodiversity of tree species in urban areas”, belonging to the curriculum Biology.

The research proposal may encompass graphic elements and could be divided into paragraphs containing a summary, the state of the art, the objectives, the methodology, the techniques and the related technological resources, a temporal framework of the different research phases, the expected objectives and their impact in the reference scientific area.

Interview
The oral exam and interview (score up to a maximum of 50/100) will consist of the oral presentation of the research proposal and a discussion of the technical and scientific issues related to it. Knowledge of the English language will also be evaluated. Candidates can carry out the presentation and discussion either in Italian or in English.

The evaluation of the qualifications and the project proposal is required for admission to the oral exam. The results of the first evaluation phase will be published, as soon as they are available, on the University’s website at [https://www2.unimol.it/dottorato/](https://www2.unimol.it/dottorato/).

To be admitted to the oral exam, the candidate must score not less than 15/100 in the evaluation of their research proposal.

The maximum score is equal to 100/100, divided into the following sub-scores:

- **25/100 Academic qualifications**;
- **25/100 Research proposal in written form**;
  - Consistency of the project proposal with the themes indicated
  - Originality of the project and the contribution to knowledge in the area
  - Clarity in the identification and description of the research objectives
  - Project structure and feasibility
  - Organization and synthesis
- **50/100 Interview and knowledge of the English language**.
  - Clarity and mastery of knowledge in the area of the project - state of the art
  - Clarity of the candidate to expose and describe the objectives, originality, expected results, contribution to the knowledge of the area and any practical application of the proposed research
  - Candidate's ability to discuss the structure of the project, including methods
  - Aptitude to the research activity

The results of the two evaluation phases will be published, as soon as available on the website [https://www2.unimol.it/dottorato/](https://www2.unimol.it/dottorato/).

**Merit ranking**
Candidates with an overall score of at least 50/100 points will be included in the overall merit ranking.

**Interview calendar**
**Date:** December 12th, 2022 at 10:00 a.m. (Italian Time); the schedule of the interviews will be defined by the Selection Committee depending on the number of candidates admitted to the oral exam.

**Place:**
**In presence:** Department of Bioscience and Territory, University of Molise, Contrada Fonte Lappone, 86090 Pesche (IS), Italy.