

DOCTOR OF PHILOSOPHY (PHD)PROGRAMME IN**SCIENCEAND TECHNOLOGY FOR ENVIRONMENT AND HEALTH(STAS)**Coordinator: Prof Marina Paolucci, paolucci@unisannio.it**FACULTY & ADMINISTRATION**Department: *Scienze e Tecnologie*[Science and Technology]**DURATION**

3 years (36 Months)

POSITIONS AVAILABLE (10)

ORDINARY POSITIONS (8)	With University Scholarship	No. 6 (six)	<i>To participate in the selection procedure, the applicants, under penalty of exclusion, must expressly indicate the topic for which they intend to present the project. The applicants can choose only one topic among those indicated.</i>
	Without University Scholarship	No. 2 (two)	
Positions reserved(2)	Position* reserved for holders of scholarships of foreign countries	No. 2 (two)	<i>* To participate in the selection procedure for this position, applicants must declare to possess the documentation concerning the scholarship of which they are holders</i>
RESEARCH TOPIC for ordinary positions (For each chosen theme, the applicants must identify and illustrate a specific research project by using the format available)	<ol style="list-style-type: none"> 1. <i>Geomorphological survey and production of thematic cartography of landscapes with a strong geotourist vocation with a view to conservation, protection and enhancement of the geo-environmental resources of the Campania region.</i> 2. <i>Stratigraphic, sedimentological and kinematic evolution of Tertiary mountain wedges and extensional basins in the framework of the Western-Central Mediterranean subduction system.</i> 3. <i>Mobility and exploitation of the territory during the early stages of European population through the analysis of the dynamics and technologies of supplying lithic raw materials in the Lower Paleolithic.</i> 4. <i>Plant bioinformatics.</i> 5. <i>Coccolithophores adaptive response to past environmental change.</i> 6. <i>Bioinformatics methods for reverse engineering of biological networks from single cell data in the context of the molecular mechanisms controlled by centrosome and ribo-nucleic-protein particles in cell division and rare genetic disorders.</i> 7. <i>New genes associated with Epileptic Encephalopathy: functional and pharmacological studies for a precision medicine approach.</i> 8. <i>Application of machine learning methods and compositional data analysis in the study of soil, air and water pollution.</i> 9. <i>Bioactive molecules as modulators of gut-brain axis: in vitro and in vivo evaluation.</i> 10. <i>The effects induced by the mineralogical composition of marine and river</i> 		

	<p><i>sediments on the distribution and concentration of microplastics and microfibers.</i></p> <p>11. <i>Groundwater resources: quality and quantity for sustainable management.</i></p> <p>12. <i>Design and synthesis of nanoparticles for the delivery of pharmacologically active substances;</i></p> <p>13. <i>Study of SARS-CoV-2 evolution in the post-vaccination three-year period;</i></p> <p>14. <i>Effects of anthropogenic stresses on soil and sediment microbial communities: their role in ecosystem stability;</i></p> <p>15. <i>Identification of natural biomolecules to be employed in animal farming;</i></p> <p>16. <i>The geological safety of linear infrastructures;</i></p> <p>17. <i>Genomic profiling and precision medicine.</i></p>
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Admission Requirements

Italian second level (Masterequivalent) graduate degree ("Laurea Magistrale") or foreign degree deemed equivalent to an Italian second-level degree in one of the scientific disciplines relevant to the PhD Programme disciplinary areas

LM-6 Biologia

LM-7 Biotecnologie agrarie

LM-8 Biotecnologie industriali LM-9 Biotecnologie mediche, veterinarie e farmaceutiche

LM-13 Farmacia e farmacia Industriale

LM-17 Fisica

LM-18 Informatica

LM-21 Ingegneria biomedica

LM-22 Ingegneria chimica

LM-32 Ingegneria informatica

LM-35 Ingegneria per l'ambiente e il territorio

LM-40 Matematica

LM-41 Medicina e chirurgia

LM-42 Medicina veterinaria

LM-46 Odontoiatria e protesi dentaria

LM-48 Pianificazione territoriale urbanistica e ambientale

LM-53 Scienza e ingegneria dei materiali

LM-54 Scienze chimiche

LM-60 Scienze della natura

LM-61 Scienze della nutrizione umana

LM-69 Scienze e tecnologie agrarie

LM-70 Scienze e tecnologie alimentari

LM-71 Scienze e tecnologie della chimica industriale

LM-73 Scienze e tecnologie forestali ed ambientali

LM-74 Scienze e tecnologie geologiche

LM-75 Scienze e tecnologie per l'ambiente e il territorio

LM-79 Scienze geofisiche

LM-80 Scienze geografiche

LM-82 Scienze statistiche

LM-86 Scienze zootecniche e tecnologie animali

6/S (specialistiche in biologia)

7/S (specialistiche in biotecnologie agrarie)

8/S (specialistiche in biotecnologie industriali)

9/S (specialistiche in biotecnologie mediche, veterinarie e farmaceutiche)

20/S (specialistiche in fisica)

21/S (specialistiche in geografia)

23/S (specialistiche in informatica)

26/S (specialistiche in ingegneria biomedica)

27/S (specialistiche in ingegneria chimica)

35/S (specialistiche in ingegneria informatica)

38/S (specialistiche in ingegneria per l'ambiente e il territorio)
 45/S (specialistiche in matematica)
 46/S (specialistiche in medicina e chirurgia)
 47/S (specialistiche in medicina veterinaria)
 52/S (specialistiche in odontoiatria e protesi dentaria)
 54/S (specialistiche in pianificazione territoriale urbanistica e ambientale)
 61/S (specialistiche in scienza e ingegneria dei materiali)
 62/S (specialistiche in scienze chimiche)
 68/S (specialistiche in scienze della natura)
 74/S (specialistiche in scienze e gestione delle risorse rurali e forestali)
 77/S (specialistiche in scienze e tecnologie agrarie)
 78/S (specialistiche in scienze e tecnologie agroalimentari)
 79/S (specialistiche in scienze e tecnologie agrozootecniche)
 81/S (specialistiche in scienze e tecnologie della chimica industriale)
 82/S (specialistiche in scienze e tecnologie per l'ambiente e il territorio)
 85/S (specialistiche in scienze geofisiche)
 86/S (specialistiche in scienze geologiche)
 91/S (specialistiche in statistica economica, finanziaria ed attuariale)
 Degree obtained prior to DM 509/99 and 270/2004 in scientific disciplines related to the disciplinary fields of the doctorate

Evaluation of Qualifications and Oral Exam			
Selection-Admissions: Policies & Procedures	Evaluation of academic titles (Curriculum Vitae and relevant documentation)	Up to 40 points	<p>Graduation grade assessable according to proportional parameters or, failing that, the weighted average grade of the exams taken (for those who obtain the degree by 31/10/2021) (up to 8 points);</p> <p>Thesis of Laurea Magistrale (or equivalent) in full format (or, for final year applicants only, drafting of the thesis being filed countersigned by the supervisor and with the stamp of the Department of reference) which can be evaluated in consideration of the content and congruence with the PhD Programme (up to 2 points);</p> <p>c) Research project (up to 15 points);</p> <p>d) monographs and publications in journals or series with peerreview, evaluable if congruent with the PhD Programme and already published, or with a certificate, from the publisher, of acceptance and forthcoming publication; - Patents if congruent with the PhD Programme (Up to 8 points);</p> <p>post-graduate university specialization diploma, Master of at least one year duration issued by universities or qualified research bodies that can be evaluated if congruent with the PhD Programme (Up to 2 points);</p> <p>Research grants that can be evaluated if congruent with the PhD Programme, such as (Up to 5 points):</p> <ul style="list-style-type: none"> • scholarships issued by Italian or foreign universities or by research institutes of primary and proven relevance; • periods of study and research abroad (including the Erasmus period) carried out at universities or qualified research institutes for a continuous period of time of not less than 3 months; • prizes awarded by national and international scientific societies that can be evaluated if congruent with the PhD Programme;

	Oral exam (interview)	30 to 60 points	<p>The oral exam will focus on an interview concerning the academic qualifications and the research project presented; it may be carried out via "teleconference" for foreign applicants or for Italian applicants in justified cases based on adequate documentation. It is forbidden to carry out audio / video recording. It is also forbidden for anyone to broadcast the audio / video recording made with tools other than the platform. The absence of the candidate on the day and time of the oral exam will be considered as a renunciation of the competition, whatever the cause. Applicants who have obtained a grade of not less than 30/60 in the interview will pass the oral exam. Applicants would need to achieve a minimum grade of 30/60 in the interview in order to pass the oral exam.</p> <p>For the evaluation of the oral exam, without prejudice to the autonomy of the Commission for all types of positions, ordinary and reserved, the evaluation criteria are:</p> <ul style="list-style-type: none"> a) clarity of presentation (up to 20 points) b) ability to synthesize (up to 10 points) c) ability to carry out part of the discussion in the foreign language chosen from those indicated in the form of each PhD Program call (Up to 10 points) d) ability to answer in-depth questions on the research project presented (up to 20 points).
Selection- Admission Tests: Schedules			
	Oral Test	Oral exam dates, times and venues will be announced by a notice published on the University website at the address: https://www.unisannio.it/index.php/it/studente/studente-laureato/dottorato-di-ricerca	