

DOCTOR OF PHILOSOPHY (PHD)PROGRAMME IN**SCIENCE AND TECHNOLOGY FOR ENVIRONMENT AND HEALTH(STAS)****Coordinator: Prof Francesco Maria Guadagno, guadagno@unisannio.it****Interested applicants are encouraged to contact the coordinator for information on research topics****FACULTY & ADMINISTRATION****Department: *Scienze e Tecnologie* [Science and Technology]****DURATION**

3 years (36 Months)

POSITIONS AVAILABLE (9)

ORDINARY POSITIONS (8)	With University Scholarship	No. 6 (six)	<i>To participate in the selection the candidate, under penalty of exclusion, must expressly indicate in the application the topic for which he intends to present the project.</i>
	Without University Scholarship	No. 2 (two)	
1 (one) additional position *, which will be activated only if covered by a scholarship, following possible financing by the INPS	Type: Subject related to the "Industry 4.0" initiative - Innovative Intersectorial PhD.	N. 1	<i>* The additional position will not be activated without a scholarship (in the event of lack of funding by the INPS)</i>

RESEARCH TOPIC for ordinary positions

1. Synthesis of degradable aliphatic polyesters from renewable resources for biomedical applications.
2. Enzymes of carbon dioxide metabolism in living systems of interest to health and the environment
3. Integrative Bioinformatics methods for the immunological characterization of cancer.
4. Role of microRNAs in cellular and mitochondrial modifications occurring in pathological conditions, including tumors.
5. Identification and biochemical characterization of novel potential nutraceuticals with relevant effects on metabolic homeostasis and cardiovascular prevention.
6. Innovative biotechnological products for biomedical applications.
7. Cellular and molecular mechanisms involved in epileptogenesis.
8. Employment of bioactive molecules in aquaculture.
9. Development of new technologies in characterization, bio and phytoremediation of contaminated soils and groundwater.

10. Study of plant response mechanisms and hormonal role in biotic and abiotic stresses.
11. Hydraulic and hydrologic features of groundwater resources.
12. Crystalline and volcanoclastic sources as evolutionary indicators of the Apennine Meso-Cenozoic detrital siliciclastic successions in the frame of the peri-Mediterranean orogenic belts
13. Geo-Archaeology: Stratigraphic Geology studies and sedimentology near sites of cultural interest for the reconstruction of the natural scenery in order to promote sustainable geo-environmental tourism.
14. Applications of experimental study and monitoring techniques of the "gullies" evolution in various space-time scales.
15. (topic related to the request for additional INPS scholarship) Integrated monitoring for the security of linear infrastructures and at risk life-line through innovative remote sensing systems and low-cost ground sensors.

Programme Entry Requirements

Italian second level (Masterequivalent) graduate degree ("laureamagistrale")
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-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-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)

Evaluation of Qualifications and Oral Test			
Selection-Admissions: Policies & Procedures	Evaluation of qualifications by reviewing submitted candidate Curriculum Vitae and relevant documentation	Up to 40 points	a) Final graduating marks and Dissertation Topic (up to 30 points); b) Other (up to 10 points) <ul style="list-style-type: none"> • Reference letter(s) by scholars external to the University; • Publications; • Other training and/or research activities undertaken • Foreign language certifications and other certifications
	Oral Test Interview	30 to 60 points	<p>The interview (oral test) will last approximately 20 mins. Applicants are invited to prepare a presentation, of up to 15 mins, on the chosen research topic, including use of audiovisual media. Candidates' English language skills and proficiency will also be evaluated on this occasion.</p> <p>Candidates would need to achieve a minimum grade of 30/60 in the interview in order to pass the oral test.</p> <p>The interview may be conducted via "teleconference" for foreign applicants or for Italian applicants where circumstances so warrant, which should be justified on the basis of appropriate documentation submitted with the request.</p>
Selection-Admission Tests: Schedules			
	Oral Test	Oral Test (interview) dates, times and venues will be announced by way of a notice published on the University website at: http://www.unisannio.it/it/studente/laureato/dottorato-di-ricerca	