

ANNEX 1/c			
PhD program: SCIENCE			
XLI CYCLE – a.y. 2025-2026			
Department	Department of Basic and Applied Sciences - Potenza		
Coordinator	Prof.ssa Patrizia FALABELLA e-mail: patrizia.falabella@unibas.it		
Duration	3 years		
Web site	"SCIENZE" - Dipartimento di Scienze di Base e Applicate		
Curricula	<ol style="list-style-type: none"> 1. Applied Biology 2. Geo-Sciences 3. Chemical Sciences 		
Aims and topics	<p>The Ph.D. "Science" brings together the educational and research experiences already gained, in the field of tertiary education, within the Department of Science. The course fits into the interdisciplinary field of chemical, geological, biological, pharmaceutical and natural sciences and is intended to provide students with tools for applied research in animal, plant, microbial and environmental biology, also through a One Health approach. The Ph.D. in "Science," incorporating the principles of the Program for a "Zero Waste Europe," aims to provide Ph.D. students with the basic concepts for the proper use of natural resources, green chemistry and the circular economy, i.e., an industrial economy in which any innovation in the production cycle must aspire to zero residue, aiming to reuse any material already used in the process, the development of new green technologies and processes and the design of new eco-friendly products. The course aims to provide the skills needed to carry out, at universities, research centers, public institutions or private entities, highly qualified research activities while contributing to the realization of the European Higher Education Area and the European Research Area and to the professional training of PhDs in line with the requirements of the recruitment policies of the National Recovery and Resilience Plan. The aim is to provide students with a solid preparation in both scientific knowledge and applied solutions (scientific method, ability to write and manage research projects, patenting skills, etc.), in order to conduct advanced research and experimentation and to know how to evaluate and exploit the results. In particular, the course aims to provide the tools to work in the fields of biology and chemistry, both basic and applied, as well as in the fields of environmental control and monitoring, control and use of resources and geo-resources, and the study of systems of geological interest.</p>		
Admission requirements	<ol style="list-style-type: none"> a) University degree obtained under the previous educational systems (ex ante D.M. 509/99, whose legal course has at least a four-year term); b) Laurea specialistica/magistrale (D.M. 509/99 and Dm 270/2004); c) Academic title obtained abroad and eligible for access to the PhD programme, previously recognized by academic authorities, even in the context of inter-university cooperation and mobility agreements. In the absence of such approval, the candidate must apply a request in the application form according to the Art. 3 of this call. 		
Available positions	15	With scholarship	Without scholarship
		14	1

<p>Type of scholarships (Description awarding entity and research topic)</p>	<p>Regione Basilicata "Programma regionale Basilicata FESR FSE+ 2021-2027" Patti territoriali "D.D. MUR 5 febbraio 2025, n. 112"</p>	<p><u>11 scholarships on the following topics:</u></p> <ol style="list-style-type: none"> 1) "Development of electrospun scaffolds loaded with bioactive extractives from beekeeping by-products for advanced biomedical applications" 2) "Study of the relationship between tectonic structures and hydrogeological framework in the axial zone of the Southern Apennines, aimed at defining strategic groundwater resources" 3) "Sustainable Recovery of Bioactive Compounds from Agro-Industrial By-Products and Integrated Pharmacokinetic and Pharmacodynamic Characterization" 4) "Biosustainable natural resources for the prevention of chronic diseases" 5) "Molecules of health, agricultural, environmental and industrial interest derived from insects: isolation, characterization and biotechnological applications" 6) "Synthesis of novel biologically active compounds, caged in gold nanostructures for topic and/or cosmetic uses" 7) "Formulation, preparation, and control of conventional and innovative dosage forms of bioactive molecules" 8) "Identification, functional characterization and study of the mechanisms of action of insect antimicrobial peptides as potential therapeutic agents" 9) "Investigation of the biological activity of synthetic compounds with potential antitumor effects in 3D in vitro cell models resistant to standard therapies, for the development of innovative combined therapeutic approaches" 10) "Cybersecurity and Material Pathology: An Integrated Approach to Protect Cultural Heritage from Digital Threats and Chemical-Biological Degradation" <p>A period in a company (6 months) and abroad (12 months) is mandatory.</p>
	<p>INGV</p>	<p><u>1 scholarship</u> on the following topic:</p> <p>"Origin and circulation of mineralizing paleo-fluids in high-angle fault zones of the central-southern Apennines (Italy)"</p> <p>A period in INGV (6 months) and abroad (6 months) is mandatory</p>

	Department of Basic and Applied Sciences – Progetto LUCAS	2 scholarships on the following topics: 1) “Water-rock interaction in the Pollino Massif, Basilicata: environmental geochemistry modeling” 2) “Gut microbiota dysfunctions in Lucanian subjects exposed to various pollutants” A period abroad is mandatory.	
Positions reserved for graduates in foreign universities		With scholarship	Without scholarship
		0	0
Positions without scholarship	1 position		
Admission procedure	The admission procedure is conducted through the: a) evaluation of qualifications b) evaluation, as part of the interview, of a research project , drawn up in Italian or English using the format set out in Annex C to the call for proposals, concerning the subject/type of grant for which you are competing c) video conference interview using google meet		
Evaluation criteria	a) evaluation of qualifications: up to a maximum of 25 points minimum score to access the interview 15 points b) interview: up to a maximum of 75 points the interview is passed for a score not less than 45 points Minimum total score: 60 out of 100		
Assessable qualifications	Graduation Thesis (The candidate must attach a summary of the thesis, in Italian or English, of max 16.000 characters)	Up to 5 points	
	Degree mark (For candidates who have not yet obtained the degree, the weighted average of the marks obtained in all the exams of the degree program, taken on the date of submission of the application for admission, will be evaluated)	Up to 16 points	
	Scientific publications (Articles in national and international scientific journals, proceedings of scientific conferences, poster, books or book chapters)	Up to 2 points	
	Other titles (University degrees or Master Specialization, Research Grants, Scholarships, Erasmus scholarships and periods of activity abroad)	Up to 2 points	

Interview program	<p>The interview, which can be held in Italian or English, will focus on the discussion of the submitted research project and is aimed at ascertaining the candidate's scientific interests and aptitude for research.</p> <p>During the interview, the knowledge of the Italian language will be ascertained for foreign candidates.</p>
Foreign language	English (knowledge of a foreign language will be assessed during the interview)
Schedule of the admission tests	<p>Evaluation of qualifications: results will be available from <u>October 28, 2025</u> on the website http://portale.unibas.it/site/home/didattica/dottorati-di-ricerca.html</p> <p>Day of the video conference interview: <u>November 4, 2025 - 10:30 a.m.</u></p>