Finanziato dall'Unione europea NextGenerationEU

Annex 1

PH.D. PROGRAM IN SCIENCE, TECHNOLOGY AND BIOTECHNOLOGY FOR SUSTAINABILITY	
Coordinator	Prof. Andrea Vannini
Department	Department for Innovation in Biological, Agrofood and Forest systems
Program duration	3 years: 1st March 2023 – 28th February 2026 Thesis Defence: within July 2026
Program objectives	The main aim of this PhD course is to provide high quality training in research methods and prepare professional researchers for University, Research Institutions and Industries in three fields of research: 1) Food products; 2) Forest Ecology and environmental technologies; 3) Biological systems/ Bioindustries; The research activities of the curriculum in *Food products* will cover the food science and technology sector and deal with food processing, preservation and quality assessment and management, as well as the assessment of the environmental impact of food processing. The teaching activity will involve the cooperation with the National Network of the Italian PhD Research in *Food Science Technology and Biotechnology*. The research activities of the curriculum *Forest ecology and environmental technologies* will include the functionality and structure of forest systems, the soil system being included; forest biodiversity; monitoring and management of forest and environmental resources; the ecological recovery of degraded ecosystems; climate and global change mitigation and adaptation. The research activities of the curriculum *Biological systems/ Bioindustries* will include basic and applied biology for animal, plant, and microbial systems; bioremediation and human health biotechnologies, as well as the white-, green- e red-biotechnologies. The teaching programme is directed to provide students with skills in English language, statistical analysis of experimental data, bioeconomic, and assessment of the environmental sustainability of complex systems.
Places available	The scholarships, all in the context of the Forest ecology and environmental technologies curriculum, are intended to realize research projects in the field of the Environmental European Research Infrastructures involved in the terrestrial component of ITINERIS (ICOS, eLTER, ANAEE, DISSCO, LIFEWATCH, IBISBA, EMPHASYS):

Places available	**PNRR Scholarships ITINERIS (Italian Integrated Environmental Research Infrastructures System)**	1. "Increase the ITINERIS Research Infrastructures readiness to answer emerging environmental global challenges" Contact person: Prof. Dario Papale
		2. "Integration of the ITINERIS Research Infrastructures to address European and Global environmental questions" Contact person: Prof. Dario Papale
		3. "Research Infrastructures for biodiversity and climate change studies" Contact person: Prof. Dario Papale
Admission requirements	Application to the public competition is open to all, regardless of age and citizenship, who, by the date this call expires, possess one of the qualifications listed below: - an Italian "laurea specialistica" degree, obtained according to the Ministerial Decree n. 509/1999; - an Italian "laurea magistrale" degree, obtained according to the Ministerial Decree n. 270/2004; - an Italian equivalent university degree obtained under the Italian regulations previously in force, the timespan of which being no less than 4 years; - a foreign university degree equivalent to those mentioned above. Admission is also open to university students who will obtain their MS degree by the graduation session on February 2023. In this case, admission will be "conditional"; the applicants will send by mail (capuani@unitus.it) or hand out to the "Ufficio Offerta Formativa" a self-certification of the relative degree (a certification in case of Non-EU students). Self-certification (or certification in case of Non-EU students) should state the name of the awarding University, award date, grade and type of qualification ("vecchio ordinamento", "Specialistica"/ "Magistrale") and a copy of a valid identity document. Applicants not in possess of the admission requirements must indicate the date by which they expect to obtain the qualification required.	
Evaluation of candidates (Maximum score: 80 out of 80)	**- Evaluation of academic qualification and oral examination** **- Assessment of the English Language Knowledge (for Italian candidates only)** **Language for the examination: English** The final score is given by summing the scores relative to the academic qualification and oral examination. These scores will be published within the section *Didattica>Offerta post lauream>Dottorati di Ricerca* of the web site of the University of Tuscia (www.unitus.it) Together with the application form, candidates should present a research project, relating to a single research topic, up to a maximum of 8000 characters, which must be written in Italian or English. The research project will be discussed during the oral exam.	

Evaluation of academic qualification (Maximum score: 20 out of 80)	Master's thesis: max 2 points University career (exams taken with the relative grades and final grade): max 5 points Scientific publications relating to the areas of Ph.D.: max 4 points Research and/or study activities in foreign institutions: max 2 points Participation in research projects: max 1 points Professional experiences and other qualifications that each candidate considers useful: max 2 points Research project submitted by the candidate: max 4 points Before of the oral exam, the evaluation of academic qualification results will be published on the Tuscia web site www.unitus.it (section *Didattica>Offerta post lauream>Dottorati di Ricerca*).
Evaluation of the oral exam	Oral exam: maximum score 60 out of 80 points The minimum score for a positive oral exam will be at least 40 out of 80 points.
Topics of the oral examination	The interview, aimed at ascertaining the aptitude of candidates for scientific research, will be aimed at assessing the knowledge of basic scientific issues in the field of ecosystem biodiversity and the impact of climate change on biological systems and the Research Infrastructures roles, and, specifically, will focus on the discussion of the research project presented by the candidate, which must be in line with one or more of the following themes: - Organization, roles, critical aspects and potentialities of the European Research Infrastructures - Data analysis and integration to answer and address large environmental challenges Terrestrial ecosystems, biodiversity and climate change.
Exam dates and locations	The date(s) of the interview will be published on the University website at the site: www.unitus.it >Didattica>Offerta post lauream> Dottorati di Ricerca by the deadline of the Application Call.
Contact to information	Head of the curriculum *Forest Ecology and Environmental Technologies* Dario Papale e-mail darpap@unitus.it