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ANNEX A

PhD Course in Agri-food Production Sciences (DOT22SFTY2)

Coordinator	Prof. Giuseppe Maiorano e-mail: maior@unimol.it
CUN Area	07
E.R.C.	LS9_3; LS9_4; LS9_5
Overview	<p>The PhD Course in Agri-food Production Sciences of the University of Molise aims to train highly qualified professional profiles in the field of primary productions and global sustainability (environmental, economic and social) of agricultural systems.</p> <p>The PhD course consists of three <i>curricula</i>:</p> <p>1. Sustainable Plant Production and Protection The <i>curriculum</i> in Sustainable Plant Production and Protection aims to train a professional figure with methodological preparation at the international level, capable of developing and applying innovative methodologies, including biotechnological and molecular ones, for: the production and defense of agricultural resources; the sustainable management of agro-ecosystems with particular attention to the mitigation of climate change and the Farm to Fork strategy; the design of new agronomic and enabling technologies to encourage the diffusion of precision farming systems; the protection and enhancement of biodiversity; the use of biological and integrated control strategies to address the adversities of the main agro-ecosystems; the management of agro-food residues with a circular economy perspective; the conservation of soil fertility and improvement of soil quality; the qualitative and quantitative improvement of water resources; the valorisation of plant production that is necessary for the improvement of the economic and market performances of agro-food companies and for the development of rural territories.</p> <p>2. Welfare, Biotechnology and Quality of Animal Production The <i>curriculum</i> in Welfare, Biotechnology and Quality of Animal Production aims to train a professional figure with methodological preparation at the international level, with autonomy and specific skills in the field of animal production, able to transfer research results also in the public and private sectors. The main lines of research concern: genetic improvement, conservation and protection of animal genetic resources; animal nutrition and efficient use of natural resources; the development of technologies for the application of bioeconomy principles, with particular reference to the use of by-products from the agriculture and food supply chain; implementation of sustainable practices and protection of animal welfare; improvement of the quality of products of animal origin considering the economic, regulatory, safety and health aspects of food; the enhancement of animal production for the improvement of the economic and market performances of agro-food companies and for the development of rural territories.</p> <p>3. Food Science, Technology and Biotechnology The <i>curriculum</i> in Food Science, Technology and Biotechnology aims to train a professional figure with methodological preparation at the international level, capable of developing and applying new scientific knowledge in the field of food processing, conservation, evaluation and control. A figure with autonomy and specific skills in the field of food production with problem solving skills and able to autonomously manage research and projects in his/her sector. The specific objectives are those of the emerging lines of food science aimed at ensuring, through innovative and sustainable solutions, food safety, quality and typicality of the productions. The main lines of research concern: the study and management of production processes and the microbiological, technological, nutritional, health and organoleptic characteristics of raw and processed foods in different processing and storage conditions; the enhancement of traditional and innovative food products; the production of novel foods and functional foods; the valorisation of the food production necessary for the improvement of the economic and market performances of agro-food companies and for the development of rural territories.</p>
Website	Information on the organization of the activities of the PhD are available on the web page of the PhD Course https://www2.dipagricoltura.unimol.it/dipartimento/dottorato-di-ricerca/
Duration	01/11/2023 – 31/10/2026





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Available positions	Positions with scholarships	3
	Position with scholarship DM 118/2023 PNRR (M4C1-Inv. 4.1) Theme: Design, development, implementation and evaluation of innovative systems for pest bio-monitoring and management -- Period in Italy of n. 6 months at: FASMI srl registered office in Cercemaggiore (Campobasso) - Period abroad of n. 6 months at: Department of Agriculture Crop Production and Rural Environment, University of Thessaly, Greece	1
	Position with scholarship DM 118/2023 PNRR (M4C1-Inv. 4.1) Theme: Ecological transition to sustainable crop protection: Strengthening and fostering the practical adoption of Biocontrol agents through the study of mechanisms of action at a molecular genetics level - Period in Italy of n. n. 6 months at: AgroVentures srl, registered office in Latina - Period abroad of n. n. 6 months at: Instituto de Agroquímica y Tecnología de Alimentos (IATA, CSIC), Valencia, Spain	1
	Position with scholarship DM 118/2023 PNRR (M4C1-Inv. 4.1) Theme: Process and product innovations for the valorization and sustainability of confectionary productions - Period in Italy of n. 6 months at: DOLCEAMARO SRL, registered office in Rome - Period abroad of n. 6 months at: University of Granada (Spain)	1
	Position with scholarship DM 118/2023 PNRR (M4C1-Inv. 4.1) Theme: Sustainability, safety and high-quality of plant-based food analogous - Period in Italy of n. 6 months at: SCIENZANOVA S.R.L., registered office in Termoli (Campobasso) - Period abroad of n. 6 months at: Research Institute of Animal Science, Ellinikos Georgikos Organismos (ELGO) Dimitra, Greece	1
	Position with scholarship funded by the Istituto Superiore Sanità, registered office in Rome Theme: Impact of emerging pollutants in indoor environments: definition of protocols for risk assessment - Period in Italy of n. 6 months at: Istituto Superiore Sanità, registered office in Rome - Period abroad of n. 6 months at: Yusuf Hamied Department of Chemistry University of Cambridge, United Kingdom	1
	TOTAL Positions with scholarship	8
	of which with scholarship reserved for applicants from foreign universities	2
Requirements for admission to the competition	<p>All specialized or master's degrees, or degrees of the system prior to that introduced with the D.M. 509/1999.</p> <p>For candidates who have acquired the title abroad, the latter must have equivalent characteristics with those indicated above.</p>	
Assessable qualifications and related score	<p>List of assessable qualifications (score up to a maximum of <u>20/100</u>):</p> <ul style="list-style-type: none"> - professional and educational curriculum; - degree mark or weighted average of the marks obtained in the exams of the program of studies of aforementioned degrees; - thesis work; - scientific publications on the themes object of the PhD research activities (max. 3); - other past activities in the university and research fields; - any other qualifications that the candidates may consider useful to attach to the application to demonstrate their training and aptitude to research. 	





In the evaluation of applications for scholarships financed with the resources referred to in Ministerial Decree 118/2023 and with particular reference to the project proposal presented by the candidates, the Commissions will also take into account the criteria set out in Ministerial Decree [118/2023](#)

<p>Thematic areas of the research project proposals and of the interview</p>	<p>Research proposal (score up to a maximum of <u>20/100</u>):</p> <p>Candidates are required to prepare a research project proposal to be submitted along with the application must be dated and signed. The project proposal, dated and signed by the candidate and drawn up in accordance with Annex 5, coherent with second level degree, must be on one of the following themes selected among those of interest:</p> <ol style="list-style-type: none"> 1. Theme: Design, development, implementation and evaluation of innovative systems for pest bio-monitoring and management DM 118/2023 (PNRR M4C1-Inv. 4.1) 2. Theme: Ecological transition to sustainable crop protection: Strengthening and fostering the practical adoption of Biocontrol agents through the study of mechanisms of action at a molecular genetics level DM 118/2023 (PNRR M4C1-Inv. 4.1) 3. Theme: Process and product innovations for the valorization and sustainability of confectionary productions DM 118/2023 (PNRR M4C1-Inv. 4.1) 4. Theme: Sustainability, safety and high-quality of plant-based food analogous DM 118/2023 (PNRR M4C1-Inv. 4.1) 5. Theme: Impact of emerging pollutants in indoor environments: definition of protocols for risk assessment Istituto Superiore Sanità, registered office in Rome <p>Interview</p> <p>The oral exam and interview (score up to a maximum of 60/100) will consist of an oral presentation of the research proposal and a discussion of the technical and scientific issues related to it. Knowledge of the English language will be also evaluated. Candidates can carry out the presentation and discussion in English.</p>
<p>Assessment criteria and ranking of the candidates</p>	<p>The assessment of academic qualifications is preparatory to the interview. The results of the evaluation phase will be published, as soon as available on the website https://www2.unimol.it/dottorato/.</p> <p>The maximum score is equal to 100/100, divided into the following sub-scores:</p> <ul style="list-style-type: none"> - maximum 20/100 Academic qualifications - maximum 20/100 Research proposal in written form - maximum 60/100 Interview and knowledge of English language <p>The results of II evaluation phase will be published, as soon as available on the website https://www2.unimol.it/dottorato/</p>
<p>Merit ranking</p>	<p>Candidates who score an interview mark of at least 40/60 points will be included in the overall merit ranking.</p>
<p>Interview calendar</p>	<p>Date: 5 <i>September 2023</i> time 10:00 (Rome Time); the agenda of the interviews will be defined by the Selection Committee depending on the number of candidates admitted to oral exam.</p> <p>Place: for those who choose to take the oral exam</p> <ul style="list-style-type: none"> - in presence: Università degli Studi del Molise, Dipartimento Agricoltura, Ambiente e Alimenti, Aula F. Silvestri – 2° p., Via F. de Sanctis s.n.c., 86100 Campobasso (CB), ITALY. - online: Google Meet at meet.google.com/szd-frpt-cds





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