ANNEX A

PhD Course in Agri-food Production Sciences (DOT22SFTY2)

Coordinator	Prof. Antonio De Cristofaro e-mail: decrist@unimol.it
Short description	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. The PhD course consists of three *curricula*: **1. Sustainable Plant Production and Protection** The *curriculum* 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 valorization 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. **2. Welfare, Biotechnology and Quality of Animal Production** The *curriculum* 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 bio economy principles, with particular reference to the use of by-products from the agriculture and food supply chain; animal welfare and implementation of sustainable practices in line with the One Health approach; application of precision farming system and artificial intelligence; 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. **3. Food Science, Technology and Biotechnology** The *curriculum* 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

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	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.	
Web Site	Information on the structure of PhD activities is available on the webpage of the Doctoral School: site: https://www3.unimol.it/ricerca/scuola-di-dottorato/generiche/24	
Duration of the Programme	01/11/2026 – 31/10/2029	
Total Number of Available Positions	**Position with scholarship financed by the Molise region (Molise FESR FSE+ Regione Molise 2021/2027)**	**1**
	Position with a scholarship financed by the Molise region (Molise FESR FSE+ Regione Molise 2021/2027), reserved for graduates in foreign universities	**1**
	Position with a scholarship financed by the Molise region (Molise FESR FSE+ Regione Molise 2021/2027) with mandatory period in an enterprise. Period in Italy of n. 6 months in an enterprise. **Theme:** Sustainable farming system of Casertana pig.	**1**
	Position with a scholarship co-financed by the Molise region (Molise FESR FSE+ Regione Molise 2021/2027) and CREA: CREA Cerealicoltura e colture Industriali (CREA-CI), sede di Foggia, con sede legale in Roma, via della Navicella 2/4, 00184, Partita IVA 08183101008/C.F.: 97231970589. Period in Italy of n. 6 months at the CREA Cerealicoltura e colture Industriali (CREA-CI), Foggia. **Theme:** Investigation of Root–Soil Interactions through High-Throughput NIR Spectroscopy for Sustainable Wheat Management.	**1**
	TOTAL positions with scholarship	**4**
Admission requirements	All specialized or master's degrees, or degrees of the system before that introduced with the D.M. 509/1999. For candidates who have acquired the title abroad, the latter must have characteristics equivalent to those indicated above.	
Assessable Qualifications and Corresponding Scores	**List of assessable qualifications up** to a maximum of **10/100**: - professional and educational curriculum; - degree mark or weighted average of the marks obtained in the exams of the program of studies of the aforementioned degrees; - thesis work; - scientific publications on the themes 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 for research.	
Examination Topics and interview *Please note that the research proposal described in the report (Annex 5), submitted for the purposes*	**Research proposal (awarded up to a maximum of 30/100).** Applicants are required to demonstrate active engagement with the research topics of one of the research areas of the three *curricula* of the PhD Programme by submitting a research proposal, which forms an integral part of the application. The proposal must be dated, signed by the applicant, and prepared in accordance with Annex 5.	

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of the competition, does not necessarily correspond to the research *project that will ultimately be carried out during the PhD Programme.* *Should the candidate be admitted, the actual research project will be subsequently defined and approved by the PhD Committee Board*	For the **position with financed scholarships by the Molise region (Molise FESR FSE+ Regione Molise 2021/2027) with mandatory period in an enterprise,** the research project must be consistent with their second-level degree and with the following research theme selected among those of interest: - Theme: Sustainable farming system of Casertana pig For the **position with financed scholarships by the Molise region (Molise FESR FSE+ Regione Molise 2021/2027) and CREA**, the research project must be consistent with their second-level degree and with the following research theme selected among those of interest: - Theme: Investigation of Root–Soil Interactions through High-Throughput NIR Spectroscopy for Sustainable Wheat Management **Interview** (qualifications up to a maximum of **60/100)** The oral exam and interview will consist of an oral presentation of the research proposal and a discussion of the technical and scientific aspects related to it. Knowledge of the English language will also be assessed. Candidates may conduct the oral exam and discussion in English.
Criteria for the evaluation	The assessment of candidates is divided into two stages. The first one concerns the evaluation of assessable qualifications and the research proposal; the second stage concerns the oral exam. The results of the first stage of assessment will be published, as soon as available, on the University website at: https://www3.unimol.it/ricerca/scuola-di-dottorato/generiche/24 The maximum score obtainable by each candidate is **100/100**, allocated as follows: ● **10/100 Assessable qualifications** ● **30/100 Evaluation of the research proposal submitted with the application** ● **60/100 Interview and knowledge of the English language** The results of the second stage of assessment will be published, as soon as they are available, on the University website at the link: https://www3.unimol.it/ricerca/scuola-di-dottorato/generiche/24 in the specific sections dedicated to the relevant Doctorate programme
Ranking	Candidates who score an interview mark of at least **40/60** points will be included in the overall merit ranking.
Date of the Interview	Date: **21 September 2026, at 10:00** (GMT+2) according to the schedule established by the Selection Committee based on the number of candidates admitted to the interview. Venue: for candidates opting to sit the oral examination ● **on-site**: Room: F. Silvestri – 2nd floor; Building: III Edificio Polifunzionale; University of Molise, Via De Sanctis s.n.c., 86100, Campobasso (CB), ITALY. ● **online**: meet.google.com/qwd-nwzr-yby

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