

Annex B

**PHD COURSE IN
BIOTECHNOLOGY AND SMART PRACTICES FOR A SUSTAINABLE MANAGEMENT
OF NATURAL RESOURCES, FOOD AND AGRICULTURE – 42nd cycle
ACADEMIC YEAR 2026/2027**

Coordinator: Maria Luisa Amodio (PO) – SSD: AGRI-04/B – Agricultural Mechanics – University of Foggia

Scientific-Disciplinary Sectors:

AGRI-01/A: Rural Economics and Valuation
AGRI-02/A: Agronomy and Herbaceous Cropping Systems
AGRI-02/B: Vegetable and Ornamental Crop Science
AGRI-03/A: General Arboriculture and Tree Crops
AGRI-04/A: Agricultural Genetics
AGRI-04/C: Plant Pathology
AGRI-05/B: General and Applied Entomology
AGRI-06/A: Agricultural Hydraulics and Forest Hydraulic Engineering
AGRI-06/B: Agricultural Engineering and Mechanization
AGRI-07/A: Animal Science
AGRI-08/A: Food Science and Technology
AGRI-09/C: Agricultural Microbiology
MVET-02/B: Veterinary General Pathology and Pathological Anatomy
MVET-03/B: Veterinary Internal Medicine
CHEM-01/A: Analytical Chemistry
CHEM-05/A: Chemical Foundations of Technology
PHYS-01/A: Experimental Physics
BIOS-01/C: Systematic Botany
BIOS-02/A: Zoology
BIOS-06/A: Biochemistry
IIND-06/A: Industrial Bioengineering
IEGE-01/A: Management Engineering
IINF-05/A: Information Processing Systems

Administrative Office: Department of Agricultural Sciences, Food, Natural Resources and Engineering

Duration:

3 years

Curriculum:

1. SUSTAINABLE AGRICULTURE, NATURAL RESOURCES AND BIODIVERSITY

This curriculum will develop skills for the sustainable management of natural resources and agriculture, with particular emphasis on precision agriculture and smart farming, decision support systems, reduction of agricultural inputs, logistics and management of production inputs and outputs (Internet of Things), product quality, environmental protection, and the preservation of animal, plant, and microbial biodiversity. It also includes bioindustry for waste and non-food product valorization (circular economy), biorefineries, and biogenetics.

	2. EMERGING TECHNOLOGIES FOR ENSURING FOOD QUALITY AND SAFETY Skills will be developed in precision management of processes, logistics and management of transformation inputs and outputs (Internet of Things), food product quality, traceability and safety, biotechnology and innovative low environmental impact technologies aimed at increasing product added value, maximizing efficiency and reducing waste. The curriculum also covers sustainability assessment of products and processes, strategies to raise awareness among consumers and supply chain actors on environmental issues, and marketing of sustainably produced food products.
TOTAL NUMBER OF POSITIONS AVAILABLE: 8	
N. 3 POSITIONS WITH SCHOLARSHIPS granted by the University of Foggia	
N. 1 POSITION WITH SCHOLARSHIPS funded under the "SRH06 Back Office AKIS" Project – CUP B91F25000630009 – Apulia Region – Project-specific research topic: <i>"Advancing Knowledge Governance in Agriculture: Digital Back-Office Models to Enhance the Puglia Agricultural Knowledge and Innovation System (AKIS) and Farm Competitiveness"</i>	
N. 1 POSITION WITH SCHOLARSHIPS co-funded by the Department of DAFNE under the "Economie MICRODAUNO" Project – Project-specific research topic: <i>"Biopreservative Potential of Lactic Acid Bacteria: Antimicrobial Screening and Applications for Sustainable Food Systems"</i>	
N. 1 POSITION WITH SCHOLARSHIPS co-funded by the Edmund Mach Foundation – Project-specific research topic: <i>"Rapid Microbiological and Technological Screening Strategies for the Design of Plant-Based Fermented Foods"</i> (FEM)	
N. 1 POSITION WITH SCHOLARSHIPS funded by the Experimental Zooprophyllactic Institute of Apulia and Basilicata – Project-specific research topic: <i>"Microbiological and Parasitological Safety of Wild Boar Meat from Hunting Activities"</i>	
N. 1 POSITION WITHOUT SCHOLARSHIP	
COURSE DESCRIPTION:	
https://www.unifg.it/en/studiare/corsi-post-laurea/ciclo-xlii/biotechnology-and-smart-practices-sustainable-management-natural-resources-food-and-agriculture	
ADMISSION PREREQUISITES:	
Master's Degree in: LM-3 Landscape Architecture LM-6 Biology LM-7 Agricultural Biotechnology LM-8 Industrial Biotechnology LM-9 Medical, Veterinary and Pharmaceutical Biotechnology LM-17 Physics LM-18 Computer Science LM-21 Biomedical Engineering LM-22 Chemical Engineering LM-23 Civil Engineering LM-24 Building Systems Engineering LM-25 Automation Engineering	

LM-26 Safety Engineering
 LM-27 Telecommunications Engineering
 LM-28 Electrical Engineering
 LM-29 Electronic Engineering
 LM-30 Energy and Nuclear Engineering
 LM-31 Management Engineering
 LM-32 Computer Engineering
 LM-33 Mechanical Engineering
 LM-35 Environmental and Land Engineering
 LM-41 Medicine and Surgery
 LM-42 Veterinary Medicine
 LM-48 Urban and Environmental Planning
 LM-52 International Relations
 LM-53 Materials Science and Engineering
 LM-54 Chemical Sciences
 LM-56 Economics
 LM-59 Public, Business, and Advertising Communication
 LM-60 Natural Sciences
 LM-61 Human Nutrition Science
 LM-69 Agricultural Science and Technology
 LM-70 Food Science and Technology
 LM-71 Industrial Chemistry Technology
 LM-73 Forest and Environmental Sciences and Technology
 LM-74 Geological Sciences and Technology
 LM-75 Environmental and Land Sciences and Technology
 LM-77 Business Economics
 LM-79 Geophysics
 LM-82 Statistics
 LM-83 Actuarial and Financial Statistics
 LM-86 Animal Science and Technology
 LM/GASTR Economic and Social Sciences of Gastronomy

ADMISSION PROCEDURE:

The selection is based on: Evaluation of academic qualifications, Evaluation of the research project and Oral exam.

The evaluation will be carried out according to Articles 6 and 7 of the Call for applications.

Please list your qualifications as follows:

Degree and grade: Degree granting access to the program and final mark
With regard to this qualification, applicants holding a foreign degree must indicate the minimum and maximum grades on the grading scale of their home University:

MIN / MAX

Academic and educational qualifications:

Additional degrees beyond those required
 PhD
 First or Second-level University Master's degree
 Postgraduate specialization courses
 Specialization diplomas

Research activities:

At qualified Italian and foreign institutes in fields related to the PhD program. Participation in EU projects.
(Specify type of position, duration, and institution; project details, duration, and role)

Scientific publications and patents: Publications in SCOPUS-indexed journals Patents Non-SCOPUS publications Book chapters Conference proceedings Abstracts/posters presented at conferences	
Awards: <i>(Specify reason, title, and date of award)</i>	
ADMISSION TEST CALENDAR AND VENUE:	
Publication of the list of candidates admitted to the oral examination (Article 7, paragraph 4): September 22, 2026 Date: The test (oral interview) will take place on September 24, 2026 . During the oral examination, candidates will be asked to discuss the research proposal submitted with their application, demonstrate their knowledge and competencies in the relevant field, and their proficiency in the English language will be assessed. Candidates may choose to take the oral examination in English. Mode: Online . Any changes to the above dates will be published on the University's website, on the webpage dedicated to the PhD Programme, and such publication shall constitute official notification to all candidates, at the following link: https://www.unifg.it/en/studiare/corsi-post-laurea/ciclo-xlii/biotechnology-and-smart-practices-sustainable-management-natural-resources-food-and-agriculture	
OTHER USEFUL INFORMATION: For all useful information, please consult the University website at: https://www.unifg.it/en/studiare/corsi-post-laurea/ciclo-xlii/biotechnology-and-smart-practices-sustainable-management-natural-resources-food-and-agriculture	
USEFUL CONTACTS:	
Didactic/scientific coordinator	Pr. Maria Luisa Amodio email: marialuisa.amodio@unifg.it
Administrative contact person	Dr. Maria Grazia Mariella email: ufficiodottorato@unifg.it