

PhD Programme Table - 39th cycle
Call for Applications for further PhD positions
funded by Next Generation EU - NRRP ex M.D. 117/2023 and 118/2023
and from other sources - PhD Programmes (39th cycle)
A.Y. 2023/2024



Section "Available Positions and Scholarships" integrated on 20/07/2023

Section "Available Positions and Scholarships" integrated on 03/08/2023

PROGRAMME'S NAME	AGRICULTURAL, ENVIRONMENTAL AND FOOD SCIENCE AND TECHNOLOGY
DURATION	3 years
PROGRAMME START DATE	01/11/2023 (DD/MM/YYYY)
LANGUAGES	English
COORDINATOR	Prof. Massimiliano Petracci (m.petracci@unibo.it)
PhD POSITIONS	23
ADMISSION PROCEDURE	Qualifications and research proposal evaluation Oral examination

Available Positions and Scholarships

Pos. n.	Financial Support	Description	Positions linked to research topics
1	PhD Scholarship PNRR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by Nuova Era Società Agricola r.l.	Cultivation of cannabis in greenhouses for medicinal use of active ingredients
2	PhD Scholarship PNRR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by RINOVA Soc. Coop	Artificial intelligence and robotics for the agronomic management of horticultural crops
3	PhD Scholarship PNRR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by OLITALIA S.r.l.	Evaluation of the frying performance of seed oils, oil blends and frying products selected on the basis of their intended use, by physico-chemical and sensory analysis
4	PhD Scholarship PNRR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by CREA - Centro di Ricerca Cerealicoltura e Colture Industriali	Gain a better understanding on hemp cultivar susceptibility to main fungal diseases. Use of metagenomic approaches to investigate the impact of different plant metabolic profiles (chemotypes) of the host and the microbial population (in terms of

			pathogenic and beneficial taxa) to hemp susceptibility
5	PhD Scholarship PNRR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by Consorzio Agribologna sca	Development and optimization of new processing and packaging technologies for fresh-cut fruit
6	PhD Scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project MIDAS (G.A. n. 101082070)	Developing innovative cropping systems in marginal land
7	PhD Scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU_2022_SAFEWAX Sustainable Bioinspired Wax Coating for Multi-Functional Crop Protection (G.A. n. 101099462)	Proof-of-concept of bioinspired methods to control plant pathogens in a sustainable manner without using toxic chemicals
8	PhD Scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU_2022_SAFEWAX Sustainable Bioinspired Wax Coating for Multi-Functional Crop Protection (G.A. n. 101099462)	Role of bio-inspired molecules on plant response to drought and high temperature stresses
9	PhD Scholarship	Funded by the University of Bologna general budget within the Progetti di Sviluppo Strategico dei Dipartimenti (PSSD) initiative and by the Department of Agricultural and Food Sciences	Sustainability and quality of poultry production
10	PhD Scholarship PNRR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by RINOVA Soc. Coop.	TEA for plant production, through the enhancement of knowledge on genome editing, cisgenesis, gene silencing (RNAi)
11	PhD Scholarship PNRR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by RINOVA Soc. Coop.	Novel approaches for modern potato production
12	PhD Scholarship PNRR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by Agricultural Genomics Institute at Shenzhen (AGIS), Chinese Academy of Agricultural Sciences (CAAS)	Global tetraploid wheat prenotyping and association genetics
13 12	PhD Scholarship PNRR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by Istituto Ramazzini cooperativa sociale Onlus	Translational study of the effects of the administration of pesticide mixtures on in vitro Sprague-Dawley rat cell models
14 13	PhD Scholarship PNRR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by C.I.V.V. Ampelos	Innovative strategies for the control of grapevine Flavescence dorée
15 14	PhD Scholarship PNRR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by CFS Europe S.p.A.	Characterization of the performances of various natural antioxidants in the formulation of food, feed and pet food, to identify the best processing conditions

15	PhD Scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by EU-HE Project BIOSECURE (contract n. 101083923)	Economic impacts of biosucurity improvements in animal farming
16	PhD Scholarship PNRR ex M.D. 118/2023 - PNRR Research	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 1, Investment 4.1 (M.D. 118/2023) – PNRR Research	Integrated strategies for innovation and sustainable development in agri-food production
17	PhD Scholarship PNRR ex M.D. 118/2023 - PNRR Research	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 1, Investment 4.1 (M.D. 118/2023) – PNRR Research	Integrated strategies for innovation and sustainable development in agri-food production
18	PhD Scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU FISHEUTRUST (GA. n. 101060712)	Adopting a Life Cycle Thinking approach to build innovative solutions for informed policy interventions in the agri-food system
19	PhD Scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the projects HEU FOLOU (GA n. 101084106) and HEU EULAND Europe_land (G.A. n. 101081307)	Agri-food system transformation: Identifying, designing and testing new sustainability metrics and tools
20	PhD Scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU GreenME (GA n. 101084198)	A multidisciplinary approach to assess the causality of nature-based and green cares to improve humans well being and urban area livability
21	PhD Scholarship PNRR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by Azienda Agricola Risaia de Duca Società Agricola a. R. L.	Best practices to implement welfare and sustainability in dairy farms
22	PhD Scholarship PNRR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by Futura S.p.A.	Tools and strategies for sustainability and innovation management in the food sector
23	PhD Scholarship PNRR ex M.D. 117/2023	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (M.D. 117/2023) and by CAA Centro Agricoltura Ambiente “Giorgio Nicoli” Srl	Containment of odor emissions of organic biomass through the use of microorganisms and evaluation of the effect of the microbial inoculum on persistent and dangerous organic pollutants

The number of positions and scholarships may be incremented in case additional funding becomes available, notwithstanding the terms of the application process as detailed in Art. 3 of the Call for Applications. Any amendment, update or integration of the Programme Table will be published, even after the Call for Applications has expired. Any further PhD positions shall be integrated in the PhD Programme Table within ten days before the oral examination.

All PhD positions winners shall fulfill the learning and research obligations decided by the Academic Board and the obligations foreseen in the relevant regulations, funding schemes and eventual agreements, and in the Call for Applications. Moreover, applicants awarded with PhD scholarships funded by Next Generation EU shall fulfill specific obligations foreseen in the relevant funding scheme, in the relevant regulations and in the Call for Applications.

Admission Exams

	DATE AND TIME	RESULTS
Qualifications and research proposal evaluation	Applicants' participation is not required	Available from 06/09/2023**
Oral examination	Date: starting from 12/09/2023 – 9.00 a.m. CEST* Place: Remotely, using Microsoft Teams	Available from 14/09/2023**

* In case that the oral examination cannot be completed in one day due to the large number of applicants, the oral examination detailed schedule shall be made available on the webpage [Studenti Online](#) together with the results of the qualifications and research proposal evaluation. **During the oral examination, applicants may express their interest in one or more positions linked to specific research topics.**

** The **results of the admission exams** will be available on the webpage [Studenti Online](#) (select “summary of the requests in progress” > “see detail” and open the .pdf file at the bottom of the page). **No personal written communication will be sent to applicants concerning the examinations results.**

Required and Supporting Documents to be attached to the application

All the documents listed below **shall be drawn up in English or in Italian**. In case of documents originally issued in any other language (e.g. identity document, qualifications), an official translation is required.

Only qualifications obtained **during the last 5 calendar years** shall be taken into consideration, except for the University Degree. The Admission Board will assess the relevance of the supporting documents to the PhD Programme.

REQUIRED DOCUMENTS	
Identity document	Valid identity document with photo (i.e. identity card, passport)
Curriculum Vitae	The Curriculum Vitae shall contain on the first page a Summary , duly filled, in Attachment 1 to the present PhD programme table and downloadable in .docx from the University Website (select the PhD Programme → “More information”, then check “Notices” at the bottom of the page). A 5 points penalty on the total qualification evaluation score shall be applied to applicants not attaching the summary. The following experiences will be evaluated: <ul style="list-style-type: none"> - Postgraduate vocational programmes and/or specialisation programmes relevant to the PhD Programme - Research activity of any kind - whether basic, applied, translational, etc. - carried out in any capacity, including when covered by research grants, and as a staff member of research projects - Study periods completed by applicants outside their countries of origin (e.g. Erasmus programme or other similar mobility programmes)
Degrees	Documents attesting the awarding of the first and second cycle degrees, the exams taken and the marks obtained (see Art. 3 of the Call for Applications)
Research proposal	Multi-annual research proposal, with special emphasis on the activities to be completed during the first-year course. The proposal must meet the following requirements: <ul style="list-style-type: none"> - It must be written following the Research proposal Template, in Attachment 2 to the present PhD programme table and downloadable in .docx from the University Website (select the PhD Programme → “More information”, then check “Notices” at the bottom of the page) - It must mention on the cover page the research topic linked to a specific PhD position (see the above “Available Positions and Scholarships” table) the applicant is interested in and that covers the research project proposal. <u>Research proposals written without following the template will receive 0 points;</u> - it cannot exceed 20,000 characters, including spaces and formulas, if present. This figure does not include: the title, the outline, references and images (such as graphs, diagrams, tables etc - where present); - It must include: the state of the art and consistency with the applicant study and research path; description of the project; expected results articulation of the proposal and

	<p>implementation times; outlining of the criteria meant to be used to assess the research results; references.</p> <p>The research proposal will not necessarily be the topic of the candidate's doctoral research, if admitted; the research project to be carried out during the PhD Programme will be agreed upon with the Supervisor and approved by the Academic Board.</p>
SUPPORTING DOCUMENTS	
Thesis abstract	Abstract of the second cycle degree thesis . Graduands applicants may submit the draft of the thesis. Abstracts cannot exceed 5,000 characters, including spaces and formula possibly used. The above figure does not include: the title of the thesis, the outline, references, and images such as graphs, diagrams, tables etc.
Reference letter/s	No more than 2 reference letters signed by Italian and international academics and professionals in the research field, which do not form part of the Admission Board, attesting the suitability of the applicant and his/her interest in the scientific research. Letters shall be uploaded following the procedure detailed in the Call for Applications (Art. 3.2).
Publications	Lists of publications (i.e. monographs, articles on scientific journals) and minor publications (conference papers, etc.)

Evaluation criteria*

Scores will be expressed in points out of 100, as follows.

1. Qualifications and research proposal evaluation

Minimum score for admission to the oral examination: 30 points, Maximum score: 50 points

Qualifications evaluation	Second cycle degree (Master's) final mark. Graduands shall be evaluated according to the Weighted Average Mark (WAM)	14 points max
	Publications	3 points max
	Research activity, study periods abroad, reference letter/s, other evaluable documents	5 points max
Research proposal evaluation	Scientific value and ground-breaking nature of the proposal	14 points max
	Consistency with the applicant's study path	4 points max
	Structure of the proposal	6 points max
	Proposal feasibility	4 points max

2. Oral examination

Minimum score for eligibility: 30 points, Maximum score 50 points

English language proficiency	10 points max
Research proposal presentation	25 points max
General knowledge of the PhD programme's main research topics and of the research topics linked to the available PhD positions	15 points max

Oral examination aims to assess the suitability of the applicant for scientific research as well as the general knowledge of the PhD programme's main research topics and of the research topics linked to the available PhD positions. **During the oral examination, the applicant's English proficiency shall be assessed.**

The oral examination is carried out in Italian or English.

* Possible further evaluation criteria will be available on the [University website](#), selecting the relevant PhD Programme > "More information".

Curriculum Vitae Summary

PhD Programme in Agricultural, Environmental and Food Science and Technology

Personal Information

First name(s) / Surname(s)	
Nationality	
Date of birth (day, month, year)	
Gender	
Email address	

University Education

Master

Official duration in years				
Dates (start – end or planned end)				
Awarding institution	<i>(e.g. University of Bologna - Italy)</i>			
Title of qualification awarded	<i>(e.g. MSc in Biology)</i>			
Marks	YOUR mark	Minimum PASS mark	Maximum mark	ECTS conversion (if available)
Final grade (if available)				
Weighted average of exam marks				
Title and topic of Master Thesis				

Employment

Currently employed	<input type="checkbox"/> Yes <input type="checkbox"/> No
Summary of current employment (start – end)	
Past employment record and skills obtained (start – end)	

Research and Study Abroad Experiences

List periods of study abroad (Erasmus and/or others), and research periods at universities or public/private institutions (only the last 5 years will be considered)

Scientific research of any kind (basic, oriented, translational, applied etc.) (start – end)
Periods of study abroad (start – end)

Other qualifications

List other experiences relevant to the PhD Programme (only the last 5 years will be considered)

University Master Courses (Master universitari di I e II livello) relevant to the PhD Programme
Postgraduate training programmes/specialization programmes relevant to the PhD Programme
Internships (start – end)
University teaching at any level (start – end)
Other qualifications attesting the applicant’s skills and education (prizes, grants etc.)

Template for the Research Proposal

COVER PAGE

Name:

Surname:

Title of the project:

Indicate the specific research topic you would like to work on (the list of the available PhD positions linked to a specific research topic is in the PhD programme table, page 1):

NB: i) during the oral examination, each applicant can express to the Admission Board their interest for the assignment of one or more topic-specific positions; ii) it must be not indicated the name of possible professors who will be responsible for the PhD candidate research activity and the thesis; a supervisor is appointed by the Academic Board only after enrollment.

PROPOSAL DESCRIPTION

The project description, with special emphasis on the activities to be completed during the first-year course, cannot exceed 20.000 characters, including spaces and formula possibly used. This figure does not include references and images (such as graphs, diagrams, tables etc - where present). It must contain the following elements:

- 1. State of the art.** Provide a brief survey of existing research efforts and scientific basis, preferably with references to scientific literature. If your project is a part of a larger research effort requiring coordination, explain specifically your planned contributions within the larger framework. Outline the essential elements showing consistency between the submitted research proposal and the applicant's training path and previous experiences
- 2. Description of the project.** Present the main objective and a brief summary, explaining how you intend to attain your goal. Describe how you are planning to use empirical, analytical or other methods for your research.
- 3. Expected results.** The description of expected results should address impact on science, technology and society, if appropriate.
- 4. Lead-time for implementation.** Outline a research plan for each year.
- 5. Proposed criteria to be used to assess the findings obtained.** The project timeline should contain measures of achievement.
- 6. References.** Please list applicable references.