



PHD PROGRAMME TABLE 40TH CYCLE

PROGRAMME'S NAME	AGRICULTURAL, ENVIRONMENTAL AND FOOD SCIENCE AND TECHNOLOGY
DURATION	3 years
PROGRAMME START DATE	01/11/2024 (DD/MM/YYYY)
LANGUAGES	English
COORDINATOR	Prof. Massimiliano Petracci (m.petracci@unibo.it)
PHD POSITIONS	34
ADMISSION PROCEDURE	Qualifications and research proposal evaluation Oral examination

Available Positions and Scholarships

Pos. n.	Financial Support	Description	Positions linked to research topics
1	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget under the "Departments of Excellence" initiative	
2	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget	
3	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget	
4	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget	
5	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget	
6	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget	
7	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget	
8	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget	
9	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget	
10	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget	
11	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget	
12	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget	
13	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget	
14	<i>PhD scholarship</i>	Funded by the University of Bologna general budget and by the Department of Agricultural and Food Sciences	
15	<i>PhD scholarship</i>	Funded by the University of Bologna general budget and by the Department of Agricultural and Food Sciences	
16	<i>PhD scholarship</i>	Funded by MUR under the "Departments of Excellence" initiative	Water-Food-Energy-Sustainable Agriculture Nexus
17	<i>PhD scholarship</i>	Funded by MUR under the "Departments of Excellence" initiative	Water-Food-Energy-Sustainable Agriculture Nexus
18	<i>PhD scholarship</i>	Funded by MUR under the "Departments of Excellence" initiative	Water-Food-Energy-Sustainable Agriculture Nexus

19	PhD scholarship	Funded by the University of Bologna general budget and by the Department of Agricultural and Food Sciences	Sustainable technologies and assessment to enhance bioenergy production in the agricultural context
20	PhD scholarship	Funded by the University of Bologna general budget and by the Department of Agricultural and Food Sciences	Algorithms for analyzing CANBUS data to optimize agricultural machinery and the agro-food supply chain
21	PhD scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU ICARUS, CUP J53C23002940006, G.A. n. 101122303	Sustainable aviation biofuels
22	PhD scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU MICROBIOMES4SOY, CUP J33C23003730006, G.A. n. 101083671	Microbiomes for soy production and further use
23	PhD scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU ARCADIA, CUP J33B23000040006, G.A. 101112737	Transformative climate resilience by nature-based solutions in the continental bio-geographical region
24	PhD scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU EDAPHOS, G.A. n. 101112768	Recovery of contaminated soils through industrial crops
25	PhD scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU 2022 HEU CARINA, CUP J33C22003340006, G.A. 101081839 - ref. Prof. Andrea Monti	Development of multifunctional Brassicaceae crops for bio-based applications in sustainable farming systems
26	PhD scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU ENFASYS, CUP J33C22002740006, G.A. 101059589	Tools and strategies to advance the transition towards sustainable agri-food systems
27	PhD scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU FOODCOST, CUP J33C21000270006, G.A. 101060481	True cost of food as a lever to transform the food system
28	PhD scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU CONSERWA, CUP J33C22004570006, G.A. 101081802	Understanding the role of agro-ecological practices in shaping sustainable food systems through a Life Cycle Thinking approach
29	PhD scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU FISHEUTRUST, CUP J33C22001210006, G.A. 101060712	Exploring food choices through behavioural economics approaches
30	PhD scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU FOLOU, CUP J33C21000450006, G.A. 101084106	Identifying, designing and testing new sustainability metrics and tools to assess the impact of food losses
31	PhD scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU	Exploring the influence of social norms on food

		CHORIZO, CUP J33C21000280006, G.A. 101060014 and by the project INTERREG CIRCUS	behaviour in public catering settings
32	PhD scholarship	Funded by the Department of Agricultural and Food Sciences with funds made available by the project HEU FOODCOST, CUP J33C21000270006, G.A. 101060481 e fondi JRC	Assessing the environmental, economic and social impacts of food systems
33	Research Grant	Provided by the Department of Agricultural and Food Sciences. The research grant will have a duration of 12 months, renewable up to 36 months, and gross percipient amount of €19,367 per year	Innovative agronomic strategies to improve the sustainability of the production of Actinidia and other fruit species
34	PhD scholarship	Funded by the Department of Agricultural and Food Sciences	Green and its economic, architectural and therapeutic sustainability

The number of positions and scholarships may be incremented in case additional funding becomes available, notwithstanding the terms of the application process in the Call. Any amendment, update or integration of the Programme Table will be published on the University website, 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.

Admission Exams

	DATE AND TIME	RESULTS
Qualifications and research proposal evaluation	Applicants' participation is not required	Available from 04/07/2024
Oral examination	Date: starting from 09/07/2024 – 9.00 a.m. CEST Place: Remotely, using Microsoft Teams	Available from 19/07/2024

The results of the qualifications and research proposal evaluation shall 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) together with the oral examination detailed schedule. **No personal written communication will be sent to applicants concerning the examinations results.**

During the oral examination, applicants may express their interest in one or more positions linked to specific research topics.

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	<p>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:</p> <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 PhD programme’s research topic (1,2,3,4,5,6,7,8,9 or 10 – the main research topics of the PhD programme are listed on the PhD programme’s website: Research Topics, select the PhD Programme → “More information”) the applicant is interested in and that covers the research project proposal. Research proposals written without mentioning the PhD programme’s research topic on the cover page and/or without following the template will receive 0 points; - 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 implementation times; outlining of the criteria meant to be used to assess the research results; references. <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				

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)

<p>Scientific research of any kind (basic, oriented, translational, applied etc.)</p>
<p>Periods of study abroad (e.g. Erasmus)</p>

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
University teaching at any level
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:

Check from the list the main topic the research proposal encompasses (a detailed description of the research topics is to be found at the following webpage: [Research topics](#)):

- (1) Agronomy, Herbaceous Crops, Flowers and Vegetables Systems, Agricultural Genetics and Agricultural Chemistry
- (2) International Cooperation and Sustainable Development Policies
- (3) Microbial Ecology and Plant Pathology
- (4) Agricultural and Food Economics and Policy
- (5) Agricultural Entomology
- (6) Agricultural Engineering
- (7) Food Science and Biotechnology
- (8) Animal Science
- (9) Tree Production Systems, Fruit, Forest and Ornamental Trees and Grape
- (10) Water-Food-Energy-Sustainable Agriculture Nexus

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.