# PhD Programme Table - 39th cycle
# Call for Applications for the admission to the PhD programmes (39th cycle) A.Y. 2023/2024 for scholarships funded by Next Generation EU – NRRP ex M.D. 117/2023 and M.D. 118/2023 and from other sources

| PROGRAMME'S NAME | CULTURAL AND ENVIRONMENTAL HERITAGE |
|---|---|
| DURATION | 3 years |
| PROGRAMME START DATE | 01/11/2023 (DD/MM/YYYY) |
| LANGUAGES | Italian, English |
| COORDINATOR | Prof. Donatella Restani (donatella.restani@unibo.it) |
| CURRICULA | 1. Cultural and environmental heritage: memory, protection, rights<br>2. Science and Technologies for Cultural Heritage |
| PhD POSITIONS | 13 |
| ADMISSION PROCEDURE | Qualifications and research proposal evaluation<br>Oral examination |

## Available Positions and Scholarships

| Pos. n. | Financial Support | Description | Curriculum | Positions linked to research topics |
|---|---|---|---|---|
| 1 | *PhD Scholarship* | Funded by the University of Bologna general budget and by the Department of Cultural Heritage | 1 | Socio-technical assemblage of a chemical process for sustainable, carbon-negative biofuels |
| 2 | *PhD Scholarship* | Funded by the University of Bologna general budget and by the Department of Cultural Heritage | 1 | Epigraphic memory and history: case studies from the late antique and Byzantine world |
| 3 | *PhD Scholarship* | Totally funded by the University of Bologna general budget | 1 | Sensory strategies between past and present for the study and enhancement of the Phoenician and Punic open space archaeological heritage |
| 4 | *PhD Scholarship* | Funded by the University of Bologna general budget and by the Department of Chemistry "G. Ciamician" | 2 | Temporal evolution of the atmospheric composition in association with climatic and environmental effects: historical reconstruction and current conditions |
| 5 | *PhD Scholarship* | Funded by the Department of Cultural Heritage in partnership with CIRSA - Interdepartmental Research Centre for Environmental Sciences | 2 | Assessment of environmental sustainability through the application of dynamic life cycle analysis of an innovative biopolymer generation process and subsequent production of high value-added materials |
| 6 | *PhD Scholarship* | Funded by the Department of Chemistry "G. Ciamician" partly with funds made available by the project F.A.R.E PROT. R20L4N7MS5 -EURHOPE – Prof. Talamo - PROGRAMMA NAZIONALE PER LA RICERCA 2015-2020-Framework per l'attrazione ed il | 2 | Searching for collagen for accurate radiocarbon dating |

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| | | rafforzamento delle eccellenze per la Ricerca in Italia – III edizione - €32,559 - CUP J53C22003740001 | | |
| 7 | *PhD Scholarship* | Totally funded by the University of Bologna general budget | 1 | New perspectives on the criminal protection of cultural heritage |
| 8 | *PhD Scholarship PNRR* | Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) – M4C2 Investment 1.4, title: CN Agritech - code CN00000022 - CUP J33C22001150008 - Prof. Andrea Contin | 1 | Production of biochar with thermochemical techniques and its valorisation for the production of organic fertilizers and amendments to improve carbon storage and soil quality |
| 9 | *PhD Scholarship PNRR ex M.D. 118/2023 - Public Administration* | 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) - Public Administration | 1 | The digital transition of public administrations: reengineering, enabling solutions and artificial intelligence |
| 10 | *PhD Scholarship PNRR ex M.D. 118/2023 - Public Administration* | 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) - Public Administration | 1 | Operating protocols for the valorisation of the resources of the Central Institute for Sound and Audiovisual Heritage |
| 11 | *PhD Scholarship PNRR ex M.D. 118/2023 – Cultural Heritage* | 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) – Cultural Heritage | 1 | Digital Personal Memories: Formation, Management and Preservation |
| 12 | *PhD Scholarship PNRR ex M.D. 118/2023 – Cultural Heritage* | 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) – Cultural Heritage | 1 | Study of the long-term historical changes of large predators and Mediterranean marine ecosystems that provide goods and services to society through intellectual and technological exploitation of natural cultural heritage |
| 13 | *PhD Scholarship PNRR ex M.D. 118/2023 – Cultural Heritage* | 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) – Cultural Heritage | 1 | European painting between technical art history and artistic diagnostics: materials, techniques, context and evolution |

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.

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## Admission Exams

|  | DATE AND TIME | RESULTS |
|---|---|---|
| **Qualifications and research proposal evaluation** | Applicants' participation is not required | Available from **03/07/2023**\*\* |
| **Oral examination** | **Date**: starting from **12/07/2023 – 9.30 a.m. CEST**\*<br>**Place**: In presence, Sala del Giardino Pensile, Department of Cultural Heritage, Via degli Ariani 1, Ravenna. Remotely, using Microsoft Teams | Available from **19/07/2023**\*\* |

\* 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** | No specific CV format is required |
| **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:<br>- it must include **a cover page** (see form in Attachment 1 to the present PhD programme table) indicating the **Curriculum and the eventual topic specific position** in which the applicant is interested and that is associated to the research proposal (**research proposals without this indication will receive an evaluation of zero points**);<br>- **it cannot exceed 20,000 characters**, including spaces and formula possibly used. This figure does not include: the title of proposal, the outline, references and images (such as graphs, diagrams, tables, etc. - if present);<br>- **it must include**: the state of the art; description of the proposal; expected results; articulation of the proposal and implementation times; references. |
| **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 on Studenti Online, detailed in the Call for Applications (Art. 3.2). |
| **Personal statement** | This must include the reasons prompting the applicant to attend the PhD Programme and those **relevant experiences and research interests**, that make the applicant suitable for the specific PhD Programme (3,000 characters maximum, including spaces). |

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| Publications | Lists of publications (i.e. monographs, articles on scientific journals, book chapters), abstracts and posters presented during national and international conferences, etc. |
|---|---|
| Other documents | - Postgraduate vocational training programmes and/or specialisation programmes relevant to the PhD Programme main research topics <br> - Specialisation programmes thesis (in full text) <br> - Teaching activities carried out at university level <br> - Research activities 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 <br> - Curricular and non-curricular training internships <br> - Documents attesting the knowledge of foreign languages <br> - Study periods completed by applicants outside their countries of origin (e.g. Erasmus programme or other similar mobility programmes) <br> - Other qualifications attesting the suitability of the applicants (scholarships, prizes, 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 | First (Bachelor's) and second cycle (Master's) degrees final mark/s and Weighted Average Mark (WAM). Graduands shall be evaluated according to the Weighted Average Mark (WAM) | 15 points max |
|---|---|---|
| | Publications | 5 points max |
| | Reference letters and other supporting documents | 5 points max |
| Research proposal evaluation | Scientific value and ground-breaking nature of the proposal | 15 points max |
| | Structure of the proposal | 5 points max |
| | Proposal feasibility | 5 points max |

### 2. Oral examination

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

| English language proficiency | 5 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 | 20 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".

# Attachment 1 – First page of the research proposal

Name:

Surname:

Date of birth:

Title research proposal:

**Curriculum of the PhD programme and positions linked to research topic (select only one topic)**

CURRICULUM
1. Cultural and environmental heritage: memory, protection, rights
2. Science and Technologies for Cultural Heritage

RESEARCH TOPICS
- ☐ Socio-technical assemblage of a chemical process for sustainable, carbon-negative biofuels
- ☐ Epigraphic memory and history: case studies from the late antique and Byzantine world
- ☐ Sensory strategies between past and present for the study and enhancement of the Phoenician and Punic open space archaeological heritage
- ☐ Temporal evolution of the atmospheric composition in association with climatic and environmental effects: historical reconstruction and current conditions
- ☐ Assessment of environmental sustainability through the application of dynamic life cycle analysis of an innovative biopolymer generation process and subsequent production of high value-added materials
- ☐ Searching for collagen for accurate radiocarbon dating
- ☐ New perspectives on the criminal protection of cultural heritage
- ☐ Production of biochar with thermochemical techniques and its valorisation for the production of organic fertilizers and amendments to improve carbon storage and soil quality
- ☐ The digital transition of public administrations: reengineering, enabling solutions and artificial intelligence
- ☐ Operating protocols for the valorisation of the resources of the Central Institute for Sound and Audiovisual Heritage
- ☐ Digital Personal Memories: Formation, Management and Preservation
- ☐ Study of the long-term historical changes of large predators and Mediterranean marine ecosystems that provide goods and services to society through intellectual and technological exploitation of natural cultural heritage
- ☐ European painting between technical art history and artistic diagnostics: materials, techniques, context and evolution

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