ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA | AREA
FORMAZIONE E DOTTORATO

PHD PROGRAMME TABLE
Call for applications for the admission to the PhD programmes (41st cycle) - A.Y. 2025/2026
Second round

Section "Available Positions and Scholarships" modified on 05/06/2025

Section "Available Positions and Scholarships" integrated on 13/06/2025

PROGRAMME'S NAME	CHEMISTRY
DURATION	3 years
PROGRAMME START DATE	01/11/2025 (DD/MM/YYYY)
LANGUAGES	English
COORDINATOR	Prof. Cristina Puzzarini (cristina.puzzarini@unibo.it)
PhD POSITIONS	17
ADMISSION PROCEDURE	Qualifications evaluation Oral examination

Available Positions and Scholarships

Pos. n.	Financial Support	Description	Positions linked to a specific research topic
1	***PhD Scholarship***	Totally funded by the University of Bologna general budget	Computational strategies for luminescent molecular materials
2	***PhD Scholarship***	Totally funded by the University of Bologna general budget	Spectroscopic characterization and reactivity of molecules of astrochemical interest
3	***PhD Scholarship***	Totally funded by the University of Bologna general budget	Fumarate-based metal organic frameworks for applications in water remediation and adsorption of volatile organic compounds
4	***PhD Scholarship***	Totally funded by the University of Bologna general budget	Design, synthesis and characterization of (supra)molecular species for the development of functional devices and materials
5	***PhD Scholarship***	Totally funded by the University of Bologna general budget in the framework of the "Dipartimenti di Eccellenza" initiative	Development of metal catalyzed electrosynthetic organic strategies
6	***PhD Scholarship***	Totally funded by the University of Bologna general budget in the framework of the "Dipartimenti di Eccellenza" initiative	Synthesis and characterization of supramolecular complexes incorporating persistent free radical species

7	***PhD Scholarship***	Funded by the Department of Chemistry "Giacomo Ciamician" with funds made available by the project FIS-2023-01196 POOL	Improving radiocarbon dating accuracy for late Middle and Upper Paleolithic in Central Europe
8	***PhD Scholarship***	Funded by Regione Emilia-Romagna in the framework of the research training projects for PhD programmes 41st cycle "High skills for resilience and sustainability of land and communities - ESF+ PR 2021/2027 Priority 2. Education and Training Specific Objective e) - Action No. 2 - Ecological Transition" - under the public notice approved by resolution of the Regional Council n. 344 of 10/03/2025 – funding approved by resolution of the Regional Council n. 732 of 19/05/2025 – CUP J33C25000520006	Development of spectroscopic and machine learning strategies for the identification and characterization of microplastics in complex environmental matrices
9	***PhD Scholarship***	Funded by the Department of Industrial Chemistry "Toso Montanari" with funds made available by the project HORIZON-ERC-2023-ADG-Project nr. 101141690 - PHOTOZYME "Enhancing the Potential of Enzymatic Catalysis with Light" – CUP J33C24000790006 – Prof. Paolo Melchiorre	~~Structural and spectroscopic properties of 2D/3D organic-inorganic materials for energy and optoelectronics: hybrid Perovskites and related systems~~ Harnessing Protein-Bound Iminium and Enamine Photochemistry for Asymmetric Radical Transformations
10	***PhD Scholarship***	Funded by the Department of Industrial Chemistry "Toso Montanari" with funds made available by the project HORIZON-ERC-2023-ADG-Project nr. 101141690 - PHOTOZYME "Enhancing the Potential of Enzymatic Catalysis with Light" - CUP J33C24000790006 - Prof. Paolo Melchiorre	Photoenzymatic catalysis for enantioselective radical processes: expanding biocatalytic strategies via visible-light activation
11	***PhD Scholarship***	Funded by the Department of Industrial Chemistry "Toso Montanari" with funds made available by the project HORIZON-ERC-2023-ADG-Project nr. 101141690 - PHOTOZYME "Enhancing the Potential of Enzymatic Catalysis with Light" - CUP J33C24000790006 - Prof. Paolo Melchiorre	Photoenzymatic strategies for atroposelective reactions: merging biocatalysis and photochemistry for axial chirality control
12	***PhD Scholarship***	Funded by Ferrari S.p.A.	High power automotive LIB cells
13	***PhD Scholarship***	Funded by Ferrari S.p.A.	Electrochemical modelling of LIB cells
14	***PhD Scholarship***	Funded by Chemo Pharmaceuticals	Therapeutic peptide sinthesys
15	***PhD Scholarship***	Funded by the Department of Chemistry "Giacomo Ciamician" with funds made available by Perfetti Van Melle S.p.A. and Vinavil S.p.A.	Biodegradable elastomeric materials for applications in the food industry
16	***PhD Scholarship***	Funded by the Department of Industrial Chemistry "Toso Montanari" with funds made available by the project "Dealkylative Niobium-catalyzed cross-coupling" (NIO-CAT), code MSCA2024_0000050, CUP J33C24003200006 - under the public notice approved by Directorial Decree MUR no. 201/2024 – funded by The	Development of niobium-catalyzed cross-coupling reactions by C-C bond activation

		European Union NextGenerationEU – National Recovery and Resilience Plan (NRRP), Mission 4 Education and Research, Component 2 From Research to Business, Investment 1.2 Funding of projects submitted by young researchers 	
17	***PhD Scholarship***	Funded by the Department of Chemistry "Giacomo Ciamician"	Structural studies on biomolecules and biomolecular superhydrophobic coatings for crop protections

The yearly gross amount of the scholarships awarded for the PhD Programme in "Chemistry" is €17,805.

All winners of PhD positions must fulfil the study and research obligations decided by the Academic Board, as well as the obligations set out in the relevant regulations, in the call for applications, in the funding schemes and in any agreements relating to specific positions.

Admission Exams

	DATE AND TIME	**RESULTS**
Qualifications evaluation	Applicants' participation is not required	Available from **21/07/2025**
Oral examination	**Date**: starting from **28/07/2025 – 10 a.m. CEST** **Place**: In presence, UE1 Building, via della Beverara 123/1, Bologna. Remotely, using Microsoft Teams	Available from **01/08/2025**

The results of the qualifications evaluation, as well as the oral examination detailed schedule, shall be available on the webpage Studenti Online (select "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.

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

Required and Supporting Documents to be attached to the application

Only documents in Italian or English will be considered valid and will be assessed by the Admission Board. Identity documents and diplomas/degree certificates issued in a language other than Italian or English must be accompanied by an official translation. The translation must be carried out by an authorized body or by the awarding university.
Only qualifications obtained in the last 5 years will be taken into account, with the exception of university degrees. 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 must be drawn up according to the "EuroPass" standard.
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). Please, note that the correct completion of the fields relating to the qualifications on the application procedure on Studenti Online is required (declarations about "Degree - Second or single cycle degree" e "Degree – First cycle degree"). **A 10 points penalty on the total qualification evaluation score shall be applied to applicants not filling correctly the said fields.**
Thesis abstract	Abstract of the **second cycle degree thesis.** Graduands applicants may submit the draft of the thesis. Abstracts cannot exceed 3,000 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.

SUPPORTING DOCUMENTS	
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).
Publications	- List of publications (i.e. monographs, articles on scientific journals) - **max 2** – information required: author(s)'s name, title of article, name of the journal, year of publication, first page number-last page number, journal's IF, article/publication's DOI number - List of presentations at academic conferences - **max 3** – the presentation will be evaluated only if the candidate is the presenting author. Required information: presentation type (oral or poster), national or international relevance of the conference. Abstract required.
Other documents	- Postgraduate vocational training programmes and/or specialisation programmes relevant to the PhD Programme - Teaching activities carried out at academic level - Specialisation thesis abstract (5000 characters max) - Research activity - whether basic, applied, translational, etc. - carried out in any capacity, including when covered by research grants, and as a staff member of research units - Work activity - Curricular and non-curricular professional internships - Periods of study abroad, outside the country of origin (e.g. Erasmus programme or other similar mobility programmes) - 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 evaluation

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

First and Second cycle degree final mark. Graduands shall be evaluated according to the Weighted Average Mark (WAM)	20 points max
Publications	5 point max
Consistency of the thesis topics, as described in the abstract, with the research topics of the PhD programme	15 points max
Personal statement	5 points max
Other supporting documents	5 points max

2. Oral examination

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

English language proficiency	5 points max
General knowledge of the PhD programme's main research topics and of the research topics linked to the available PhD positions	45 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".