

PHD PROGRAMME TABLE 37TH CYCLE

Section “Available Positions and Scholarship” integrated on 11/06/2021

PROGRAMME'S NAME	EARTH, LIFE AND ENVIRONMENTAL SCIENCES
DURATION	3 years
PROGRAMME START DATE	01/11/2021
LANGUAGE	Italian, English
MANDATORY STAY ABROAD	3 months
COORDINATOR	Prof. Maria Giovanna Belcastro (maria.belcastro@unibo.it)
CURRICULA	1. Geology 2. Biology
RESEARCH TOPICS	Detailed list at the bottom of the present document
PhD POSITIONS	13
ADMISSION PROCEDURE	Qualifications evaluation Oral examination

Available Positions and Scholarships

Pos. n.	Financial Support	Description	Curriculum	Positions linked to research topics
1	PhD Scholarship	Totally funded by the University of Bologna general budget	BIO	Pharmaceuticals in the marine environment: from molecular interactions to alteration of physiological processes in the mussel, <i>Mytilus galloprovincialis</i>
2	PhD Scholarship	Totally funded by the University of Bologna general budget	BIO	Evolutionary, ecological and biodemographic analysis of human lifespan
3	PhD Scholarship	Totally funded by the University of Bologna general budget	BIO	Spatial analysis and cartographic representation of uncertainty of ecological data
4	PhD Scholarship	Totally funded by the University of Bologna general budget	GEO	Geosphere and biosphere interactions – Novel terrestrial analogues for potential habitable setting on Mars
5	PhD Scholarship	Totally funded by the University of Bologna general budget	GEO	Sustainable exploitation of hidden resources: approaches for metal recovery and environmental remediation
6	PhD Scholarship	Totally funded by the University of Bologna general budget	GEO	Rock-Fluid interactions along brittle structures: how to identify their effects on the petrophysical properties of rocks, the timing of flow phenomena and of deformation processes
7	PhD Scholarship	Co-funded by the University of Bologna general budget and the Department of Biological, Geological, and Environmental Sciences	BIO	Essential oils as a source of natural compounds for the modulation of the intestinal physiology
8	PhD Scholarship	Funded by the Department of Biological, Geological, and Environmental Sciences	BIO	Characterization and evolution of mito-nuclear interactions
9	PhD Scholarship	Funded by the Department of Biological, Geological, and Environmental Sciences with funds made available by EU ERC DeepSeep project - coordinator Prof. Vitale	GEO	Magnetite formation, transformation, and distribution in high-pressure serpentinite

10	PhD Scholarship	Funded by the Department of Biological, Geological, and Environmental Sciences with funds made available by EU ERC DeepSeep project - coordinator Prof. Vitale	GEO	H2 generation and mobility at subduction zone conditions
11	PhD Scholarship	Funded by Parco Nazionale delle Foreste Casentinesi, Monte Falterona e Campigna	BIO	Conservation of natural vegetation dynamics within the National Park of Casentinesi Forests
12	PhD Scholarship	Funded by Geological Survey of Norway	GEO	Structural and petrophysical characterization of fractured crystalline basement on the Island of Smøla (central Norway) as onshore analogue of the Mid Norwegian margin offshore highs
13	PhD Scholarship	Funded by Fondazione Carisbo	GEO	

Admission Exams

	DATE AND TIME	RESULTS
Qualifications evaluation	Applicants' participation is not required	Available from 10/06/2021**
Oral examination	Date: starting from 29/06/2021 – 10 am CEST* Place: Remotely, using Microsoft Teams	Available from 05/07/2021**

* 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 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

(only documents in Italian, English, French, German and Spanish shall be considered as valid and be assessed by the Admission Board)

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)
SUPPORTING DOCUMENTS	
Thesis abstract	Abstract of the second cycle degree thesis . Graduands may submit the draft of their thesis (abstracts cannot exceed 5.000 characters, including spaces and formulas, if present. The above figure does not include: title, outline, images such as graphs, diagrams, tables etc. if present)
Personal Statement	The statement shall 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 (3000 characters maximum, including spaces).

Reference Letter/s	No more than 2 reference letters signed by Italian and/or 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 for the scientific research. Letters shall be uploaded following the procedure on Studenti Online , detailed in the Call for Applications (Art. 3.2).
Publications	List of publications (i.e. monographs, articles on scientific journals, volume chapters), minor publications (conference papers, etc.) and abstracts and posters presented during academic conferences
Other documents	<ul style="list-style-type: none"> - University Master Courses (Master Universitari di I e II livello), Postgraduate vocational training programmes and/or specialisation programmes relevant to the PhD Programme - Specialisation thesis abstract (max 5000 characters) - Teaching activity carried out at university level - 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 - Working activity - Professional or training internships - Language proficiency certificates - 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 and research proposal evaluation

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

University degree final mark. Graduands shall be evaluated according to the Weighted Average Mark (WAM)	25 points max
Publications	5 points max
Personal statement	10 points max
Other documents and reference letter/s	10 points max

2. Oral examination

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

English proficiency	10 points max
General knowledge of issues encompassed by the PhD Programme	40 points max

Oral examination aims to assess the suitability of the applicant for scientific research as well as the general knowledge of issues encompassed by the PhD Programme ([see the list of research topics at the bottom of the present document](#)). During the oral examination, English language proficiency shall be assessed. The oral examination is carried out in Italian or in English.

*Possible further evaluation criteria will be available on the [University website](#), selecting the relevant PhD Programme > "More information", at the bottom of the page in the section "Notices".

Final Ranking List and Enrollment

Each PhD position is linked to a research topic, within the framework of the Curricula in which the PhD Programme is divided. The above positions shall be awarded on the basis of both the final ranking list, as drawn up by the Admission Board, and the Curriculum for which the applicant has expressed his/her preference in the statements made at the time of filling in the application form and mentioned in the Motivation letter. **A sub-ranking list for each research topic shall be drawn up.** In the event that a candidate has not indicated the curriculum and/or the research topic for which he or she is competing, the Admission Board will assign him/her the most appropriate Curriculum and research topic on the basis of the CV, the qualifications and the motivation letter submitted. PhD positions, including replacement PhD positions, shall be awarded on the exclusive basis of the sub-ranking lists relating to the research topics/Curricula.

After the publication of the results of the oral examination, the **final ranking list** will be available on the [University website](#), selecting the relevant PhD Programme > “More information”, section “Notices” at the bottom of the page. Following the publication of the final ranking list, successful applicants shall **enroll** on [Studenti Online](#) by the deadline indicated on the [University website](#), selecting the relevant PhD Programme > “More information”. If a successful applicant withdraws from a position, the following applicant in the ranking list, who is also eligible for the specific position, will be contacted. During the replacement procedure, the new terms of enrollment shall be communicated via e-mail to the chosen applicant.

Research Topics

Curriculum 1 - Geology

- Stratigraphy and structural geology
- Geosphere-biosphere interactions
- Geochemistry, magmatism and metamorphism
- Marine geology
- Environmental geology
- Geological hazards and natural resources
- Engineering geology, hydrogeology and geomorphology

Curriculum 2 – Biology

- Molecular and cellular biodiversity
- Animal biodiversity and evolution
- Plant biodiversity and evolution
- Human biodiversity and evolution
- Population biology and ecology
- Environmental monitoring
- Marine biology
- Computational biology