

# EARTH, LIFE AND ENVIRONMENTAL SCIENCES

## Section "PhD positions and" integrated on 21/04/2020

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<b>Starting date of the PhD Programme</b>	01/11/2020
<b>Duration</b>	3 calendar years
<b>Language of the PhD Programme</b>	Italian and English
<b>Mandatory stay abroad</b>	Yes (at least 3 months)
<b>Curricula</b>	<b>Research topics</b>
<b>1. Geology</b>	<ul style="list-style-type: none"> <li>– Stratigraphy and structural geology</li> <li>– Geosphere-biosphere interactions</li> <li>– Geochemistry, magmatism and metamorphism</li> <li>– Marine geology</li> <li>– Environmental geology</li> <li>– Geological hazards and natural resources</li> <li>– Engineering geology, hydrogeology and geomorphology</li> </ul>
<b>2. Biology</b>	<ul style="list-style-type: none"> <li>– Molecular and cellular biodiversity</li> <li>– Animal biodiversity and evolution</li> <li>– Plant biodiversity and evolution</li> <li>– Human biodiversity and evolution</li> <li>– Population biology and ecology</li> <li>– Environmental monitoring</li> <li>– Marine biology</li> <li>– Computational biology</li> </ul>

### PhD positions and scholarships

<b>Position n.</b>	<b>Financial support</b>	<b>Description</b>	<b>Curriculum</b>	<b>Positions linked to research subjects</b>
1	PhD Scholarship	Totally funded by the University of Bologna general budget	BIO	Comparative Genomics of Bivalve Molluscs
2	PhD Scholarship	Totally funded by the University of Bologna general budget	BIO	Multiproxy characterization of a durum wheat germplasm collection: retrace the past to predict the future
3	PhD Scholarship	Totally funded by the University of Bologna general budget	BIO	The study retrotransposition events and DNA methylation in human brain evolution
4	PhD Scholarship	Totally funded by the University of Bologna general budget	GEO	Structural architecture and syn-to-pot-accretionary tectonic history of the Epiligurian units (Northern Apennines, Italy)
5	PhD Scholarship	Funded by the University of Bologna general budget and co-funded by the Department of Biological, Geological, and Environmental Sciences with funds made available by the project PRIN17 2017HPJLPW_004 (CUPJ34119002630001)" (PI of local research unit: Prof. Matteo Berti)	GEO	Numerical modelling of geohazards in the urban area of Bologna

6	PhD Scholarship	Funded by the University of Bologna general budget and co-funded by the Department of Biological, Geological, and Environmental Sciences	GEO	High-resolution stratigraphy of late Quaternary paleovalley systems along the Adriatic coastal plane (Italy)
7	PhD Scholarship	Funded by the University of Bologna general budget and co-funded by the Department of Biological, Geological, and Environmental Sciences	BIO	Ethnobotanical, metabolomic and bioactivity study of Italian alimurgic plant species and possible correlation with hormesis effect on human metabolism
8	PhD Scholarship	Totally funded by the University of Bologna general budget under the "Sviluppo Strategico dei Dipartimenti (PSSD)" initiative	BIO	Remote sensing approaches for monitoring ecosystem under global change
9	PhD Scholarship	Funded by the Department of Biological, Geological, and Environmental Sciences	GEO	Evaluation of sediment availability for mass wasting processes in mountain terrain

**Positions linked to specific research subjects:** each position is linked to a research topic, within the framework of the Curricula in which the PhD course 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 indicated in the Motivation letter (NB: 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 Commission will assign him/her the most appropriate Curriculum and research topic on the basis of the CV, the qualifications and the motivation letter submitted by him/her. PhD positions, including replacement PhD positions, shall be awarded on the exclusive basis of the sub-ranking lists relating to the research topics/Curricula.

#### Admission requirements

Please, see art. 2 of the Call for applications

#### Mandatory documents to be attached to the application

Please, see art. 3 of the Call for applications

**Further qualifications that may be attached to the application, if in possession of the applicant** (only qualifications attested by documents drawn up in Italian, English, French, German and Spanish shall be considered as valid and assessed by the Admission Board)

- Abstract of the second cycle master's degree thesis. Undergraduate applicants may submit the draft of the thesis approved by their supervisor (please, note that abstract cannot exceed 5.000 characters, including spaces and formula possibly used. The above figure does not include: the title of thesis, the outline, and images such as graphs, diagrams, tables etc. - where present).
- No more than 2 reference letters signed by academics and professionals in the research field, which do not belong to the Admission Board, attesting the suitability of the applicant and his/her interest for the scientific research. Please, note that the above letters cannot be uploaded by the applicants. When filling the online application form on <http://studenti.unibo.it>, applicants will only be allowed to provide the email addresses of their chosen referees. The latter shall receive an email from the University of Bologna providing them with the instructions for uploading their recommendation letters. Only letters in pdf format submitted before the deadline of the Call shall be accepted.
- Motivational letter. This has to include the personal and professional motivations prompting the applicant to apply to the PhD Programme and the relevant experience and skills that make the applicant suitable for the specific PhD Programme (3000 characters maximum, including spaces).
- List of publications (monographs, articles published on scientific journals, volume chapters).
- List of other minor publications (conference papers, etc.).
- List of abstracts and posters presented at national and international conferences, etc.
- Professional Master courses completed in Italy (1<sup>st</sup> or 2<sup>nd</sup> level) relevant to the PhD Programme.
- Postgraduate vocational training programmes/specialisation programmes relevant to the PhD Programme.
- Summary of the thesis defended within the framework of Specialization Schools. The summary cannot exceed 5000 characters.
- Teaching activity carried out at university level.
- Research activity of any kind - whether basic, applied, etc. - carried out in any capacity, including when covered by research grants, and as a staff member of research projects.
- Work experience.
- Vocational internships.
- Curricular and non-curricular training and guidance internships.
- Study periods completed outside the applicant's home country (e.g. Erasmus programme or other similar mobility programmes).
- Other qualifications attesting the suitability of the applicants (scholarships, prizes, etc).

Admission exams (art. 4 of the call for applications)		
<b>Examination type</b>	<b>Schedule</b> (please, note that applicants shall not receive any communication concerning the exams schedule)	<b>Examination results publication</b> (please, note that applicants shall not receive any communication concerning the publication of results)
<b>Evaluation of the qualifications</b>	Non-presential.	The results of the evaluation of qualifications shall be made available online starting from <b>03/06/2020</b> at the page <a href="http://studenti.unibo.it">http://studenti.unibo.it</a> (please, select “summary of the requests in progress” - “see detail” and open the pdf file “risultati valutazione titoli”)
<b>Oral examination</b>	<b>Date</b>	The results of the oral examination shall be available on the webpage <a href="http://studenti.unibo.it">http://studenti.unibo.it</a> starting from <b>19/06/2020</b> (please, select “summary of the requests in progress” - “see detail” and open the pdf file “risultati prova orale”)
	<b>Time</b>	
<p><b>09/06/2020</b> In case that the oral examination cannot be completed in one day due to the large number of applicants, the oral exam schedule shall be made available at the webpage <a href="http://studenti.unibo.it">http://studenti.unibo.it</a> together with the results of the evaluation of qualifications</p> <p>10:00 a.m. (local time)</p> <p>Applicants shall take the exam remotely. For further details please refer to the relevant provision laid down in art. 4 of the Call for applications.</p>		

### Evaluation criteria

Points will be allocated to applications out of a total of 100 on the basis of the following weighting:

#### 1. Qualifications

- Minimum for admission to the oral exam: 30 points
- Maximum: 50 points

Only qualifications relating to the last 5 calendar years prior to the calendar year of publication of the Call for applications shall be taken into consideration, with the exception of the University Degree (Diploma di laurea). Please, note that qualifications must be consistent with the PhD Programme.

Points shall be allocated on the basis of the following criteria:

- Graduation final mark. Undergraduates shall be evaluated on the basis of the Weighted Average Mark (WAM): max 30 points
- Publications: max 5 points
- Motivation letter: max 10 points
- Reference letter and other qualifications: max 5 points

#### 2. Oral examination

- Minimum for inclusion in the final ranking list: 30 points
- Maximum: 50 points

The oral examination is intended to assess the suitability of the applicant to pursue scientific research as well as his/her general knowledge of research themes pertaining to the Curriculum covered by the PhD Programme. During the oral examination, knowledge of English language shall be assessed.

The oral examination is carried out in Italian or in English.

Points relating to the oral examination shall be allocated on the basis of the following criteria:

- Knowledge of foreign languages: max 10 points
- General knowledge of issues connected to the PhD Programme: max 40 points

Possible evaluation sub-criteria will be available on the [Unibo website](http://studenti.unibo.it), selecting the relevant PhD Programme → “PhD programme information” at the bottom of the page in the section “Notices”.

### Final ranking list and enrolment (arts.6 and 7 of the Call for applications)

After the publication of the results of the oral exam, the final ranking list will be available on the [Unibo website](http://studenti.unibo.it), selecting the relevant PhD Programme → “PhD programme information” at the bottom of the page in the section “Notices”. Following the publication of the final ranking list, successful applicants must enroll on <http://studenti.unibo.it> by the deadline indicated on the [Unibo website](http://studenti.unibo.it), selecting the relevant PhD Programme → “PhD programme information”.