Coordinator: Prof. Giulio Viola  
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Starting date of the PhD Programme: 01/11/2019  
Duration: 3 calendar years  
Language of the PhD Programme: Italian and English  
Mandatory stay abroad: Yes (at least 3 months)

<table>
<thead>
<tr>
<th>Curricula</th>
<th>Research topics</th>
</tr>
</thead>
</table>
| 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 |
| 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 |

<table>
<thead>
<tr>
<th>PhD positions and scholarships</th>
<th>Description</th>
<th>Curriculu m</th>
<th>Positions linked to research subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PhD Scholarship</td>
<td>Totally funded by the University of Bologna general budget</td>
<td>1. Geology</td>
<td>Structural control on the development of karst porosity and permeability in different geological and hydrological contexts</td>
</tr>
<tr>
<td>2 PhD Scholarship</td>
<td>Totally funded by the University of Bologna general budget</td>
<td>1. Geology</td>
<td>Satellite radar interferometry for the anticipation of potentially catastrophic landslides</td>
</tr>
<tr>
<td>3 PhD Scholarship</td>
<td>Totally funded by the University of Bologna general budget</td>
<td>2. Biology</td>
<td>Monitoring of Mediterranean benthic biodiversity: an integrative taxonomic approach</td>
</tr>
<tr>
<td>4 PhD Scholarship</td>
<td>Totally funded by the University of Bologna general budget</td>
<td>2. Biology</td>
<td>The role of nectar in plant-pollinator interactions</td>
</tr>
<tr>
<td>5 PhD Scholarship</td>
<td>Totally funded by the University of Bologna general budget</td>
<td>2. Biology</td>
<td>Ecological implications and possible applications of allelopathic compounds produced by marine organisms</td>
</tr>
<tr>
<td>6 PhD Scholarship</td>
<td>Totally funded by the University of Bologna general budget</td>
<td>2. Biology</td>
<td>Variations in modern human foot skeleton and evolutionary implications</td>
</tr>
<tr>
<td>7 PhD Scholarship</td>
<td>Partly funded from the central budget and co-financed by the Department of Biological, Geological and Environmental Sciences with resources from the agreement with Norwegian University of Science and Technology</td>
<td>1. Geology</td>
<td>Structural characterization of thrust zones in the southeastern Alps (Northern Italy): seismo-tectonic implications</td>
</tr>
<tr>
<td>8 PhD Scholarship</td>
<td>Financed by the Department of Biological, Geological and Environmental Sciences with resources partly deriving from</td>
<td>2. Biology</td>
<td>Development of a Wole-genome sequence (WGS) approach for characterization</td>
</tr>
</tbody>
</table>
| 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)

| PhD Scholarship | Financed by Romagna Acque - Società delle Fonti S.p.A. | 2. Biology | Distribution of cyanobacteria and their toxins in freshwater reservoirs and evaluation of the effectiveness of drinking water treatments |
| PhD Scholarship | Financed by Romagna Acque - Società delle Fonti S.p.A. | 2. Biology | Bisfelnol A (BPA) in drinking water: assessment of the effectiveness of removal by drinking water treatments and possible risks to human health |
| PhD Scholarship | Financed by the Department of Biological, Geological and Environmental Sciences | 2. Biology | Systematics, taxonomy and myrmecophily of Mastigusa sp. Spiders (Araneae, Hahniidae) |

- 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 (1st or 2nd 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)
<table>
<thead>
<tr>
<th>Examination type</th>
<th>Schedule (please, note that applicants shall not receive any communication concerning the exams schedule)</th>
<th>Examination results publication (please, note that applicants shall not receive any communication concerning the publication of results)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of the qualifications</td>
<td>Non-presentation.</td>
<td>The results of the evaluation of qualifications shall be made available online starting from 27/05/2019 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”)</td>
</tr>
<tr>
<td>Oral examination</td>
<td><strong>Date</strong> 01/07/2019 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</td>
<td>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 04/07/2019 (please, select “summary of the requests in progress” - “see detail” and open the pdf file “risultati prova orale”)</td>
</tr>
<tr>
<td></td>
<td><strong>Place</strong> Bologna - Via Selmi 3 Dipartimento di Scienze Biologiche, Geologiche e Ambientali Sala Lauree - secondo piano</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Time</strong> 10 a.m.</td>
<td></td>
</tr>
</tbody>
</table>

Applicants can ask to take the exam remotely using Skype. For further details please refer to the relevant provision laid down in art. 4 of the Call for applications.

**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://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://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](http://studenti.unibo.it) by the deadline indicated on the [Unibo website](http://unibo.it), selecting the relevant PhD Programme ➔ “PhD programme information”.