## EARTH SCIENCES

<table>
<thead>
<tr>
<th>CYCLE</th>
<th>XXXVII</th>
</tr>
</thead>
</table>
| COORDINATOR | Prof. Marco ROVERI  
email: marco.roveri@unipr.it  
Department of Chemistry, Life Sciences and Environmental Sustainability |
| DURATION | 3 anni |
| STARTING DATE OF THE PHD PROGRAM | 01/11/2021 |

### RESEARCH TOPICS (The candidate MUST mandatorily indicate one research topic in the ANNEX A)

- Micro(nano)plastics contamination in groundwater
- Optimization of bioremediation solutions for hydrocarbon contaminated aquifers
- Fracture stratigraphy in folded and faulted sandstone turbidites: comparison between the Northern Apennines (Italy) and Limnos (Greece)
- Carbonate deposition during the Messinian salinity crisis
- Northern Apennines debris flows and climate change: analysis of recent events and reconstructions at different time scales
- Late Aquitanian-Burdigalian planktonic foraminifera high-resolution quantitative biostratigraphy in oceanic successions and implications for the definition of the Burdigalian GSSP
- Extension in the lower plate of a subduction zone: geometry, mode, timing and mechanism of foreland extension with examples from Sicily channel and Apulian swell

### TRAINING OBJECTIVES

The main aim of the Ph.D. Course in Earth Sciences is to provide highly qualified study and research paths within the large and multidisciplinary framework of Geosciences.

### ADMISSION REQUIREMENTS

Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission:

- Laurea specialistica or Laurea magistrale (second cycle master’s degree)
- Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations);
- Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program

Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31\textsuperscript{st} 2021.

### POSITION PUT OUT TO COMPETITION

<table>
<thead>
<tr>
<th>Position with Scholarship</th>
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<tbody>
<tr>
<td><strong>N°</strong></td>
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<tr>
<td>5</td>
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<table>
<thead>
<tr>
<th>N°</th>
<th>Funding entity</th>
<th>Research Topic, if any</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Scholarship funded by University of Parma (Ministerial funds)</td>
<td>---</td>
</tr>
<tr>
<td>1</td>
<td>Scholarship co-funded by Fondazione Cariparma</td>
<td>---</td>
</tr>
<tr>
<td>1</td>
<td>Scholarship funded by Department of Chemistry, Life Sciences and Environmental Sustainability (funds of &quot;Departments of Excellence&quot; program)</td>
<td>---</td>
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</tbody>
</table>
Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)

During the Oral Exam, applicants may express their interest to the Examination Board in being assigned a scholarship dedicated to a specific research topic. The Board will express its judgement on eligibility to be assigned the scholarship in consideration of the specific competences, experience and specific aptitudes of the applicants.

<table>
<thead>
<tr>
<th>N°</th>
<th>Funding entity</th>
<th>BOUND RESEARCH TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scholarship partly financed with UNIVERSITY funds and co-financed by the Department of Chemistry, Life Sciences and Environmental Sustainability</td>
<td>Micro(nano)plastics contamination in groundwater</td>
</tr>
</tbody>
</table>

ADMISSION PROCEDURES

Assessment of QUALIFICATIONS: up to 40 points
(a minimum score of 20 points shall be required to be admitted to the Oral Exam)

ORAL EXAM: up to 80 points

Minimum score for ELIGIBILITY: 70/120

Foreign Language

Language the fluency of which shall be assessed during the Oral Exam: **ENGLISH**.
The assessment of knowledge of this language will be oral and will consist in reading and translating a paragraph of scientific text.

CANDIDATES ADMITTED TO THE ORAL TEXT CAN TAKE THE EXAM IN PRESENCE OR REMOTELY IN AUDIO AND VIDEO TELECONFERENCE

(Candidates who intend to take the Oral Exam remotely must submit request, to this purpose, as per the model attached to the competition notice)

THE INTERVIEW MAY BE HELD ALSO IN ENGLISH

LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT

MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION

ANNEX A

(art. 5 of the Competition notice)

Identification Document

Scanned Copy of a valid identity document with photo (i.e. identity card, passport)

Curriculum Vitae et studiorum

No specific CV format is required (see art. 4 of the Competition notice)

Abstract of degree thesis

Abstract of the second cycle master’s degree thesis. Undergraduate applicants must submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10,000 characters including spaces)

Qualifications

Certificates and academic transcript of records for both Bachelor’ and Master’ degrees containing the following details for each degree held: (art. 4 of the Competition notice):
- University that granted the degree
- Type of degree (first cycle/second cycle/single cycle)
- Name of the degree program
- Date of graduation
- Final mark
- List of exams and corresponding scores (academic transcript of records)
- Translation into Italian or English (only for degrees issued in languages other than Italian or English).

Research Project

The research project shall consist of a maximum of 3 pages, be written in Italian or in English, focused on an original research topic (unpublished, developed personally by the candidate. It should be noted that the Examination Board can use tools useful for verifying the originality of the submitted Project) and it shall be structured as follows: introduction of the problem in the scientific context, significance of the problem, expected results. it does not represent a constraint with respect to the following choice of the doctoral thesis, that shall be defined together with the supervisor and approved by the Academic Board.
**FURTHER QUALIFICATIONS THAT MAY BE ATTACHED TO THE APPLICATION, IF IN POSSESSION OF THE APPLICANT**
(only qualifications attested by a document drawn up in Italian or in English)

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Evaluation Criteria</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Statement of Research Interest</td>
<td>Short text – maximum 1 page – in Italian or in English, aimed at explaining the candidate’s reasons to attend the PhD program and at describing her/his specific research interests</td>
<td>Up to 1 point</td>
</tr>
<tr>
<td>Scientific Publications</td>
<td>Articles on national and international journals, papers presented at conferences or symposia, monographs, chapters of books, convention papers, reviews</td>
<td></td>
</tr>
<tr>
<td>Reference Letters</td>
<td>A maximum of 2 written by professors or researchers at the University of origin of the candidate or from other universities or from experts in the research areas working in public or private research facilities (to be attached to the online application)</td>
<td></td>
</tr>
<tr>
<td>Other Academic qualifications</td>
<td>First or second level Master’s degree obtained in Italy and/or specialization degree in subjects consistent with the research topics of this PhD program</td>
<td></td>
</tr>
<tr>
<td>Other experiences (training, work, research, teaching, etc.)</td>
<td>– 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, awards, etc.)</td>
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**EVALUATION CRITERIA**

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>Curriculum Vitae et studiorum</td>
<td>Including academic career and postgraduate experience, accompanied by a statutory declaration in lieu of the certification of the exams passed with the relevant marks, as well as the final graduation mark.</td>
<td>Up to 6 points</td>
</tr>
<tr>
<td>Graduation mark</td>
<td>Score related to the final mark: -110 and 110 with honours (magna cum laude): 5 points -from 107 to 109: 4.5 points -from 105 to 106: 3.5 points -from 100 to 104: 2.5 points -from 95 to 99: 1 point -under 95: 0.5 points</td>
<td>Up to 5 points</td>
</tr>
<tr>
<td>Average of the exam marks (if the candidate will attain the degree no later than 31 October 2021)</td>
<td>Score related to the average of the exam marks: -from 28 to 30: 5 points -from 27 to 27.99: 4.5 points -from 26.5 to 26.99: 3.5 points -from 26 to 26.49: 2.5 points -form 25 to 25.99: 1 point -under 25: 0.5 points</td>
<td>Up to 5 points</td>
</tr>
<tr>
<td>Graduation thesis</td>
<td>Scientific quality of work performed and consistency of the Master’s Degree thesis with the doctoral program research topics</td>
<td>Up to 8 points</td>
</tr>
<tr>
<td>Research Project</td>
<td>Points relating to the research project shall be allocated on the basis of the following criteria: -Scientific value and originality of the proposal and consistency with the doctoral program research topics: 6 point -description and structure of the proposal: 2 points -proposal feasibility: 2 points</td>
<td>Up to 10 points</td>
</tr>
<tr>
<td>Statement of Research Interest</td>
<td>Short text – maximum 1 page – in Italian or in English, aimed at explaining the candidate’s reasons to attend the PhD program and at describing her/his specific research interests</td>
<td>Up to 1 point</td>
</tr>
</tbody>
</table>
### Scientific publications
- Abstract presented at a national or international congress: 1 point
- Articles on scientific journals (ISI/SCOPUS): 3 points
- Other publication (related to the topics of PhD program): 1 point
  
  Up to 5 points

### Reference Letters
A maximum of 2 written by professors or researchers at the University of origin of the candidate or from other universities or from experts in the research areas working in public or private research

Up to 2 points

### Other Academic qualifications
First or second level Master's degree obtained in Italy and/or specialization degree in subjects consistent with the research topics of this PhD program

Up to 1 point

### Other experiences
- Periods of study abroad: 1 point
- Scholarships, scientific associations awards: 1 point

Up to 2 points

### ORAL EXAM
**EVALUATION CRITERIA**

- Knowledge of foreign languages: 5 points
- Research project presentation: 50 points
- General knowledge of issues connected to the PhD course: 25 points

Up to 80 points

### SCHEDULE OF THE ADMISSION EXAMS

<table>
<thead>
<tr>
<th>ORAL EXAM</th>
<th>DATE</th>
<th>TIME</th>
<th>PLACE</th>
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<tbody>
<tr>
<td></td>
<td>14 September 2021 (with possible extension to 15 September 2021)</td>
<td>09:00 am (Italian time)</td>
<td>Department of Chemistry, Life Sciences and Environmental Sustainability EARTH SCIENCES BUILDING Parco Area delle Scienze, 157/A – Campus 43124 PARMA - ITALY</td>
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**OTHER INFORMATION**

For foreign candidates, the admission examinations may be held in English at the candidate’s choice.