



EARTH SCIENCES	
Cycle	XXXIV
Coordinator	Prof. Fulvio CELICO Department of Chemistry, Life Sciences and Environmental Sustainability email: <a href="mailto:fulvio.celico@unipr.it">fulvio.celico@unipr.it</a>
Duration	3 years
Starting date of the PdD programme	01/11/2018
<b>Research Topics</b>	
<ul style="list-style-type: none"><li>• Alterations of the hydrological cycle in agricultural irrigated areas and their impact on ground- and river-water quality: the case of the Po watershed</li><li>• Bioremediation of contaminated sites: potential of soil invertebrates to accelerate removal of contaminants from soil and aquifers.</li><li>• The geomorphological evolution of large complex landslides as response to the changes in the physical and cinematic behaviour of the displaced mass.</li><li>• Development of a procedure to transpose time-lapse electrical and electro-magnetic properties of soils onto hydraulic and geotechnical parameters.</li><li>• Sin- to post-rift tectonic evolution of Rio do Peixe basin, Brazil</li><li>• Crustal recycling processes in the convective mantle: evidence from natural samples and implications for the sources of oceanic basalts</li></ul>	
<b>Training Objectives</b>	
The main goal of the PhD course in Earth Sciences is the scientific and professional growth in different geological disciplines, taking into consideration possible interdisciplinary approaches.	
<b>Admission requirements</b>	
Applicants who have one of the following degrees may participate in the selection: <ul style="list-style-type: none"><li>- Laurea specialistica or Laurea magistrale (second cycle degree)</li><li>- Laurea Vecchio Ordinamento (degree obtained under the Italian previous regulations);</li><li>- an academic Master's degree obtained abroad, comparable to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral programmes.</li></ul> Undergraduate applicants may also submit applications with the obligation of getting their degree by <b>October 31<sup>st</sup> 2018.</b>	
<b>POSITIONS PUT OUT TO COMPETITION</b>	
<b>With Scholarship</b>	5
<b>TOTAL</b>	<b>5</b>



Positions with University Scholarship		
N°	Funding entity	Research Topic, if any
2	Scholarship Ministerial funds	---
1	Scholarship co-funded by Fondazione Cariparma	---
Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Call for applications)		
<p>During the Oral Exam, applicants may express their interest in being assigned a scholarship dedicated to a specific research topic to the Examination Board. 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.</p>		
N°	Funding entity	BOUND RESEARCH TOPIC
1	Funded by Department of Chemistry, Life Sciences and Environmental Sustainability	<ul style="list-style-type: none"> <li>Alterations of the hydrological cycle in agricultural irrigated areas and their impact on ground- and river-water quality: the case of the Po watershed</li> </ul>
1	Funded by Department of Chemistry, Life Sciences and Environmental Sustainability	<ul style="list-style-type: none"> <li>Bioremediation of contaminated sites: potential of soil invertebrates to accelerate removal of contaminants from soil and aquifers</li> </ul>
ADMISSION PROCEDURES		
<p><b>Assessment of QUALIFICATIONS:</b> up to 40 points (a minimum score of 20 points shall be required to be admitted to the Oral Exam)  <b>ORAL EXAM:</b> up to 80 points  <b>Minimum score for ELIGIBILITY:</b> 70/120</p>		
<b>Foreign Language</b>	<p>Language the fluency of which shall be assessed during the Oral Exam:  <b>ENGLISH</b>            The evaluation of the knowledge of this language will be oral and will consist in reading and translating of a scientific text.</p>	
<p>Possibility of videoconference for candidates residing or temporarily abroad (the relevant request shall be submitted using the form attached to the competitive examination announcement)</p> <p style="text-align: center;">THE INTERVIEW MAY BE HELD ALSO IN ENGLISH</p>		<b>YES</b>
LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT		
Mandatory documents to be attached to the on-line application		
<ul style="list-style-type: none"> <li>– <b>ANNEX A</b> (art. 5 of the Call for Applications)</li> <li>– Scanned Copy of a <b>valid identification document</b> with photo</li> <li>– <b>Curriculum Vitae et studiorum</b> (art. 4 of the Call for Applications)</li> <li>– <b>Abstract of the second cycle master's degree thesis.</b> Undergraduate applicants may submit the draft of the thesis approved by their supervisor (10.000 characters including spaces)</li> <li>– <b>Certificates and academic transcript of records for both the Bachelor' and the Master' degrees</b> containing the following details for each degree held: (art. 4 of the Call for Applications):</li> </ul>		



- University that granted the degree
- Type of degree (first cycle/second cycle/single cycle)
- Name of the degree programme
- 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)

## 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)

- **Research Project:** The research project shall consist of a maximum of 3 pages, be written in Italian or in English, focus on an original research topic and it shall be structured as follows: introduction of the problem in the scientific context, significance of the problem, experimental procedure, 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;
- **Statement of Research Interest:** Short text – maximum 1 page – in Italian or in English, aimed at explaining the candidate's reasons to attend the PhD and at describing the specific research interests;
- **Scientific Publications:**
  - Articles on national and international journals, papers presented at conferences or symposia, book chapters
  - Articles and/or reviews in scientific journals with peer reviewing, abstracts of papers or posters presented at conventions or meetings
- **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 facilities
- **Academic qualifications:** other Master's and/or specialization degree in subjects consistent with the research topics of this PhD programme
- **Mobility experience abroad** (e.g. Erasmus or similar);
- **Any other document** certifying the applicant's training and abilities (grants, awards, etc.)

## EVALUATION CRITERIA

QUALIFICATION	EVALUTATION CRITERIA	POINTS
<b>Curriculum Vitae et studiorum</b>	Including academic career and postgraduate experience, including possible scientific Publications, Master's and/or specialization degree, mobility experience abroad	<b>Up to 15 points</b>
<b>Graduation mark</b>	Score related to the final mark: - 110 and 10 with honours (magna cum laude): 10 points; - From 107 to 109: 9 points - From 105 to 106: 7 points - From 100 to 104: 5 points - From 95 to 99: 2 points - Under 95: 1 point	<b>Up to 10 points</b>
<b>Average of the exam marks</b> (if the candidate will attain the degree no later than 31 October 2018)	Score related to the average of the exam marks: - From 28 to 30: 10 points - From 27 to 27.99: 9 points - From 26.5 to 26.99: 7 points - From 26 to 26.49: 5 points - From 25 to 25.99: 2 points - Under 25: 1 point	<b>Up to 10 points</b>



<b>Graduation thesis</b>	Consistency of the Master's Degree thesis with the doctoral programme research topics	<b>Up to 10 points</b>
<b>Research Project</b>	Points relating to the research project shall be allocated on the basis of the following criteria: <ul style="list-style-type: none"> <li>○ Scientific value and ground-breaking nature of the proposal: 1 point</li> <li>○ description and structure of the proposal: 1 point</li> <li>○ proposal feasibility: 1 point</li> </ul>	<b>Up to 3 points</b>
<b>Reference Letters</b>	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	<b>Up to 2 points</b>
<b>ORAL EXAMINATION</b>	<b>EVALUATION CRITERIA</b>	<b>POINTS</b>
The ORAL EXAM includes the presentation of the research project and is intend to assess the suitability of the applicant to pursue scientific research as well as the general knowledge of issues connected to the PhD course	<ul style="list-style-type: none"> <li>○ knowledge of foreign languages: 5 points</li> <li>○ research project presentation: 50 points</li> <li>○ general knowledge of issues connected to the PhD course: 25 points</li> </ul>	<b>Up to 80 points</b>
<b>SCHEDULE OF THE ADMISSION EXAMS</b>		
<b>ORAL EXAM</b>	<b>ORAL EXAM DATE:</b> 19 September 2018 <b>TIME:</b> 09:00am <b>PLACE:</b> Plexus of Earth Sciences Parco Area delle Scienze, 157/A – 43124 PARMA - ITALY	
<b>OTHER INFORMATION</b>	For foreign candidates, the admission examinations may be held in English at the candidate's choice.	