



EARTH SCIENCES	
CYCLE	XXXVIII
COORDINATOR	Prof. Marco ROVERI email: marco.roveri@unipr.it Department of Chemistry, Life Sciences and Environmental Sustainability
DURATION	3 years
STARTING DATE OF THE PHD PROGRAM	01/11/2022
RESEARCH TOPICS (The candidate MUST mandatorily indicate one research topic in the form ANNEX A and submit a RESEARCH PROJECT in the relevant field)	
<ul style="list-style-type: none">• Debris-flows in Northern Apennines and climate change: recent event analysis and reconstructions at different temporal scales• The calcareous nannofossils of the Southern Ocean in the Eocene - Oligocene interval: paleoecological, paleoclimatic and paleoceanographic implications• Fracture pattern and connectivity in folded and faulted sandstone turbidites: implications for subsurface fluid mobility in fractured reservoirs• The role of Messinian evaporites on the deformational style of the Croton sector of the Calabrian Arc• Carbonate production during the Messinian salinity crisis• Genetic processes and possible exploitation of natural hydrogen systems• Reconstructing the plumbing system of Marsili seamount (Southern Tyrrhenian): a combined petro-chemical and experimental petrology approach	
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: <ul style="list-style-type: none">– "Laurea Magistrale" LM-11 Science for the conservation of cultural heritage– "Laurea Magistrale" LM-35 Environmental Engineering– "Laurea Magistrale" LM-60 Natural Sciences– "Laurea Magistrale" LM-74 Geology– "Laurea Magistrale" LM-75 Environmental and land sciences– "Laurea Magistrale" LM-79 Geophysics as well as the equivalent "laurea specialistica" or "laurea" achieved based on the university system in force before the entry into force of Italian Ministerial Decree No. 509/99 <ul style="list-style-type: none">– Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral programs Undergraduates can also apply for admission to the selection, with the obligation to obtain the degree within the deadline set for enrollment, that is by 24.10.2022

POSITIONS PUT OUT TO COMPETITION	6	With Scholarship	5
		Reserved for employees of companies or public institutes and research centers engaged in highly qualified activities	1
Position with Scholarship			
N°	Funding entity	Research Topic, if any	
3	Scholarship funded by University of Parma (Ministerial funds)	---	



1	Scholarship co-funded by Fondazione Cariparma	---
1	Scholarship funded by Department of Chemistry, Life Sciences and Environmental Sustainability (funds of "Departments of Excellence" program)	---
Position reserved for EMPLOYEES of companies or public institutes and research centers engaged in highly qualified activities		
N°	Company/Institution	Bound research topic
1	Reserved to employees of company Petroleo Brasileiro S.A. - Petrobras	<ul style="list-style-type: none"> Modeling of depositional systems and turbidite facies variations at the basin scale: relationship between field data and machine and deep learning

ADMISSION PROCEDURES	Assessment of QUALIFICATIONS: up to 50 points (a minimum score of 30 points shall be required to be admitted to the Oral Exam) ORAL EXAM: up to 70 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.
APPLICANTS ADMITTED TO THE ORAL EXAM CAN TAKE IT EITHER IN PRESENCE OR REMOTELY IN AUDIO AND VIDEO TELECONFERENCE (Applicants who intend to take the Oral Exam remotely must submit a formal request, using the form 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. <u>it does not represent a constraint with respect to the following choice of the doctoral thesis,</u> 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)

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 program and at describing her/his specific research interests	
Scientific Publications	Articles on national and international journals, papers presented at conferences or symposia, monographs, chapters of books, convention papers, reviews	
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	
Other experiences (training, work, research, teaching, etc.)	<ul style="list-style-type: none"> – Research activity (basic, applied, translational, etc.) carried out in any capacity, including when covered by research grant, and as a staff member of research units – 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.) 	
EVALUATION CRITERIA		
QUALIFICATION	EVALUTATION CRITERIA	POINTS
Curriculum Vitae et studiorum	<p>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.</p> <p>The marks of the exams and the graduation mark will be the most relevant element of the evaluation.</p>	Up to 6 points
Graduation mark	<p>Score related to the final mark:</p> <ul style="list-style-type: none"> - 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 	Up to 5 points
Average of the exam marks (if the candidate will attain the degree no later than 24 October 2022)	<p>Score related to the average of the exam marks:</p> <ul style="list-style-type: none"> - 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 - from 25 to 25.99: 1 point - under 25: 0.5 points 	Up to 5 points
Graduation thesis	Congruence with the research topics of the PhD course and quality of the research methodology	Up to 8 points
Research Project	<p>Points relating to the research project shall be allocated on the basis of the following criteria:</p> <ul style="list-style-type: none"> ○ Scientific value and or originality of the proposal: max 8 points ○ description and structure of the proposal: max 3 points ○ proposal feasibility: max 3 points ○ consistency with the research themes of the PhD course: max 8 points 	Up to 22 points
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 program and at describing her/his specific research interests	Up to 1 point



Scientific publications	<ul style="list-style-type: none"> ○ Abstract presented at a national or international congress: 0,5 points ○ Articles on scientific journals (ISI/SCOPUS): 2 points ○ Other publication (related to the topics of PhD program): 1 point 	Up to 5 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 points
Other experiences	<ul style="list-style-type: none"> ○ Periods of study abroad: 1 point Scholarships, scientific associations awards: 1 point 	Up to 2 points
ORAL EXAM	EVALUATION CRITERIA	POINTS
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"> ○ knowledge of foreign languages: 5 points ○ research project presentation: 50 points ○ general knowledge of issues connected to the PhD course: 15 points 	Up to 70 points
SCHEDULE OF THE ADMISSION EXAMS		
ORAL EXAM	DATE	19 September 2022 (with possible extension to 20 September 2022)
	TIME	09:00 AM (Italian Time)
	PLACE	<p>remotely (at the request of the candidate) using the Microsoft Teams platform</p> <p>in presence at: Department of Chemistry, Life Sciences and Environmental Sustainability EARTH SCIENCES BUILDING Parco Area delle Scienze, 157/A – Campus 43124 PARMA - ITALY</p>
OTHER INFORMATION	For foreign candidates, the admission examinations may be held in English at the candidate's choice.	