



EVOLUTIONARY BIOLOGY AND ECOLOGY

Cycle	XXXVI
Coordinator	Prof. Pierluigi VIAROLI Department of Chemistry, Life Sciences and Environmental Sustainability email: pierluigi.viaroli@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2020
Partner Institution	<ul style="list-style-type: none">• University of Ferrara• University of Firenze
Partner Institution for University Cooperation Agreements	<ul style="list-style-type: none">• University Klaipėda (Lithuania)
Research Topics	
<ul style="list-style-type: none">• Plant Biology and Biotechnology• Ecology and Ethology• Genetics and Evolution	
Training Objectives	
<p>Evolutionary Biology and Ecology are an integrated area of research which in many prominent scientific institutions belong to the same Department. The doctoral program in Evolutionary Biology and Ecology focuses on the study of biological diversity and its evolution, of animal behavior, and of the relationships of all living organisms, including humans, among them and with the environment. By integrating information ranging from the molecular level to the levels of organism, population and community, Ph.D. students are encouraged to develop their research in both basic and applied fields of investigation. Innovative methods are given a central role, both in fieldwork and in the laboratory and numerical analyses, the latter based on state-of-the-art biostatistics and simulation methods. Therefore, the holder of a Ph.D. in Evolutionary Biology and Ecology will be a highly qualified expert in the analysis and interpretation of biological processes and in the management of natural resources, who will be able to independently plan and conduct empirical research, to thoroughly exploit public bioinformatic resources, to develop quantitative models and to in-depth analyze biological data.</p>	
Admission requirements	
<p>Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission:</p> <ul style="list-style-type: none">- 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 <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2020.</p>	



POSITIONS PUT OUT TO COMPETITION		
With Scholarship		10
Without Scholarship		1
Reserved to employees of companies having an "Industrial Doctorate" arrangement		2
TOTAL		13
Positions with University Scholarship		
N°	Funding entity	Research Topic, if any
2	Scholarship funded by University of Parma	For information on the topics related to the position under competition, please refer to the PhD web page https://scvsa.unipr.it/en/node/4030
3	Scholarship funded by University of Ferrara	
3	Scholarship funded by University of Firenze	
1	Scholarship co-funded by Fondazione Cariparma	
Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Call for applications)		
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.		
N°	Funding entity	BOUND RESEARCH TOPIC
1	Funded by the University of Firenze - Department of Biology (with funding from MIPAF decree No 89267 on 19 Dicembre 2019 –CUP code B541200004500001)	– The symbiont plant microbiome as a tool to improve the forage legumes (MICRO4Legume)
Position reserved for "Industrial Doctorate" (according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013)		
N°	Company/Institution	
2	Reserved to employees and/or collaborators of GATE S.r.l.	
ADMISSION PROCEDURES		
Assessment of QUALIFICATIONS: up to 60 points (a minimum score of 36 points shall be required to be admitted to the Oral Exam) ORAL EXAM: up to 60 points Minimum score for ELIGIBILITY: 70/120		
Foreign Language	Language which shall be assessed during the Oral Exam: ENGLISH . The evaluation of the knowledge of this language will be oral and will consist in translating of a scientific text.	
APPLICANTS SHALL TAKE THE EXAM REMOTELY. For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.		
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 Call for Applications)
- Scanned Copy of a **valid identification document** with photo
- **Curriculum Vitae et studiorum** (art. 4 of the Call for Applications)
- **Abstract of the second cycle master's degree thesis.** Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)
- **Certificates and academic transcript of records for both Bachelor' and Master' degrees** containing the following details for each degree held: (art. 4 of the Call for Applications):
 - 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 4 pages, be written in Italian or in English, be focussed on one of the research topic offered in the call (mandatory, for topics see <https://scvsa.unipr.it/en/node/4030>). The project must be structured as follows: introduction of the problem in the international scientific context, significance of the problem, experimental design and methodologies to be used, expected results.
- **Statement of Research interest:** Short text – maximum 2 pages – in Italian or in English, aimed at explaining the candidate's reasons to attend the PhD and at describing the specific research interests.
- **Reference Letters:** A maximum of 3 written by professors or researchers at the University of origin of the candidate or from other experts in the research areas working in public or private universities or research institutions. Reference letters by members of the Jury are not allowed.

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)

- **Scientific Publications:** Articles on national and international journals with peer reviewing, papers presented at conferences or symposia, book chapters, abstracts of papers or posters presented at congress, workshops, etc

EVALUATION CRITERIA

QUALIFICATION	EVALUTATION CRITERIA	POINTS
Curriculum Vitae et studiorum	Consistency of the Master's Degree or equivalent with the research topics of the PhD course. Further qualifications and academic experiences consistent with the objectives of the PhD program: language skills, any professional experience, study abroad, awards on the training path	Up to 20 points
Graduation mark (for graduates)	Score related to the final mark	Up to 10 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2020)	Attribution of a score based on the credit weighted mean mark	Up to 10 points



Graduation thesis	Relevance of the thesis topics with the themes of the doctorate course	Up to 5 points
Research Project	Relevance with the PhD topics, with specific reference to: <ul style="list-style-type: none">○ Scientific value and originality of the proposal○ experimental design and methodologie○ proposal feasibility	Up to 10 points
Statement of Research Interest	Consistency with the PhD topics	Up to 5 points
Scientific publications	Publications with peer reviews ISI/SCOPUS indexed, non-indexed journals, conference proceedings and abstracts of conference presentations.	Up to 5 points
Reference Letters	Relevance with the doctorate and prestige of the institution or the signer of the letter	Up to 5 points
ORAL EXAMINATION	EVALUATION CRITERIA	POINTS
ORAL EXAM is based on the presentation of the research project and aims at assessing the attitude of the applicant to pursue scientific research as well as the general knowledge of the main topics of the PhD course	<ul style="list-style-type: none">○ knowledge of foreign languages (Italian or English)○ presentation and discussion of the project○ general knowledge of topics related to the PhD course	Up to 60 points
SCHEDULE OF THE ADMISSION EXAMS		
ORAL EXAM	DATE	16 September 2020
	TIME	09:30 am (Italian time)
	PLACE	remotely using the Microsoft Teams platform
OTHER INFORMATION	For foreign candidates, the admission examinations may be held in English at the candidate's choice.	



BIOTECHNOLOGY AND LIFE SCIENCES	
Cycle	XXXVI
Coordinator	Prof. Marco VENTURA Department of Chemistry, Life Sciences and Environmental Sustainability email: marco.ventura@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2020
Research Topics	
<ul style="list-style-type: none">• Environmental• Molecular• Genetics and microbiology	
Training Objectives	
<p>The PhD in Biotechnology and Biosciences aims to train experts who can carry out advanced research activities in the biological disciplines and biotechnology. The Doctor's research themes concern the study of the function, organization and expression of the genome of microbial, plant and animal organisms (including humans), to deepen their basic knowledge, also in view of possible applications in biotechnology. The methodologies used are mainly those of genetic, microbiology, molecular biology, biochemistry and applied biology. Starting from this common objective and from a highly cross-cutting advanced teaching activity, in order to train PhDs with highly qualified skills in specific areas of Biotechnology and Life Sciences, three main areas of research defined as such: 1) environmental; 2) genetics and microbiology; 3) biochemical-molecular. PhD students will be involved full-time in a research project, to which they will also make critical and proactive contributions. In this way, they will acquire a marked scientific and management autonomy, also thanks to the numerous scientific, national and international collaborations in which they will be involved.</p>	
Admission requirements	
<p>Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission:</p> <ul style="list-style-type: none">- 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 <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2020.</p>	
POSITIONS PUT OUT TO COMPETITION	
With Scholarship	5
Reserved to employees of companies having an "Industrial Doctorate" arrangement	1
TOTAL	6



Positions with University Scholarship		
N°	Funding entity	Research Topic
3	Scholarship Ministerial funds	<ul style="list-style-type: none">• Environmental• Molecular• Genetics and microbiology
1	Scholarship University funds	– Environmental
1	Scholarship co-funded by Fondazione Cariparma	– Genetics and microbiology
Position reserved for "Industrial Doctorate" (according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013)		
N°	Company/Institution	
1	Reserved to employees of GenProbio S.r.l.	
ADMISSION PROCEDURES		
<p>Assessment of QUALIFICATIONS: up to 40 points (a minimum score of 18 points shall be required to be admitted to the Oral Exam)</p> <p>ORAL EXAM: up to 80 points</p> <p>Minimum score for ELIGIBILITY: 70/120</p>		
Foreign Language	Language the fluency of which shall be assessed during the Oral Exam: ENGLISH . The evaluation of the knowledge of this language will be oral and will consist in reading and translating of a scientific text.	
APPLICANTS SHALL TAKE THE EXAM REMOTELY. For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.		
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		
<ul style="list-style-type: none">– ANNEX A (art. 5 of the Call for Applications)– Scanned Copy of a valid identification document with photo– Curriculum Vitae et studiorum (art. 4 of the Call for Applications)– Abstract of the second cycle master's degree thesis. Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)– Certificates and academic transcript of records for both Bachelor' and Master' degrees containing the following details for each degree held: (art. 4 of the Call for Applications):<ul style="list-style-type: none">○ 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)		



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)

- **Scientific Publications:** articles published in *peer-reviewed* international scientific journals, abstracts of oral communications or posters presented at national or international scientific conferences;
- **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;
- **Mobility experience abroad** (e.g. Erasmus or similar);
- **Any other document** certifying the applicant's training and abilities (grants, awards, work contracts at public and / or private research centers).

EVALUATION CRITERIA

QUALIFICATION	EVALUTATION CRITERIA	POINTS
Curriculum Vitae et studiorum	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	Up to 5 points
Graduation mark	Score related to the final mark: - 110 with honours (magna cum laude): 20 points - 110: 18 points - From 101 to 109: 2 points for each mark unit (0-16 points)	Up to 20 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2020)	Score related to the average of the exam marks: - 30/30: 18 points; - From 21/30 to 29/30: 2 points for each mark unit (0-16 points)	Up to 18 points
Graduation thesis	Consistency of the Master's Degree thesis with the doctoral program research topics (briefly describe the topics in the curriculum vitae)	Up to 6 points
Scientific publications	Publications in <i>peer-reviewed</i> international journals: 2 points for each publication (for evaluation purposes it is mandatory to attach a pdf copy of each publication to the application)	Up to 6 points
Communications to conferences, publication in indexed national journals, book chapters	1 point for each conference abstract, publication in indexed national journals or book chapters (for evaluation purposes it is mandatory to attach a pdf copy of each term to the application)	Up to 3 points
ORAL EXAMINATION	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	The Oral Exam will focus on critical reading and discussion of a scientific article chosen by the candidate among those proposed by the Committee within the each of the three main research topics. Candidates will be asked by the Committee members to discuss and explain the contents of the scientific publication they have selected. During this Oral Exam and interview, knowledge of the English language will also be evaluated.	Up to 80 points



SCHEDULE OF THE ADMISSION EXAMS

ORAL EXAM	DATE	16 September 2020 (with possible extension to 17 September 2020)
	TIME	09:00 am (Italian time)
	PLACE	remotely using the Microsoft Teams platform
OTHER INFORMATION	The applicant MUST indicate in the application his/her preference for one of the three main research topics proposed in the selection announcement (Environmental, Genetics and microbiology, Biomolecular); the possible candidate's interest for one of the 'bound research topics' may also be specified, if applicable. For foreign candidates, admission examinations may be held in English as per candidate's request.	



PHYSICS	
Cycle	XXXVI
Coordinator	Prof. Stefano CARRETTA Department of Mathematical, Physical and Computer Sciences email: stefano.carretta@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2020
Research Topics	
<ul style="list-style-type: none">• Specific Inactivation of SARS-CoV2 Using Photoactive False Target• Correlative multimodal bioimaging• Molecular Nanomagnets for quantum technologies• Stimuli-responsive nanostructures for biomedical applications• Dynamical processes and fluctuations on networks• Properties of foams, emulsions and single molecular layers• Study of the Cu(In,Ga)(S,Se) system for Thin Film Solar Cells (TFSC)• Theoretical physics in the framework of INFN activities, in particular concerning Astroparticle Physics, Gravitational Waves and Quantum Field Theory• Metal-insulator transitions and Dirac insulators in strong spin-orbit interaction metal oxides	
Training Objectives	
<p>The PhD in Physics, with a duration of 3 years, is established as a unifying element of the third-level University education in the Physics area. Besides their main commitment to the research activity, students are supposed to spend a substantial part of their training period in attending advanced courses as well as national and international schools. Students are encouraged to spend part of their time abroad, in order to participate in scientific collaborations in their fields of interest, and follow advanced courses in support of their research program. During the three years, teaching commitments are progressively reduced towards a full time engagement in the research activity. The evaluation of the training program is carried out - at the end of each year - through open seminars held by the students. The independent scientific research is expected to lead to publication of results in international, peer reviewed journals. The ultimate goal of the PhD in Physics is a highly specialized scientific training that opens professional carriers in academic institutions and research laboratories, either public or private. The PhD in Physics is divided into three areas corresponding to major groups of disciplines of Physical Sciences covered by the research activity of the Department of Mathematical, Physical and Computer Sciences: Condensed Matter and Materials Physics, Theoretical Physics, Biophysics and Applied Physics.</p>	
Admission requirements	
<p>Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission:</p> <ul style="list-style-type: none">- 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 <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2020.</p>	



POSITIONS PUT OUT TO COMPETITION		
With Scholarship		7
TOTAL		7
Positions with University Scholarship		
N°	Funding entity	Research Topic, if any
4	Scholarship Ministerial funds	---
1	Scholarship co-funded by Fondazione Cariparma	---
Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Call for applications)		
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.		
N°	Funding entity	BOUND RESEARCH TOPIC
1	Funded by INFN – National Institute for Nuclear Physics	– Theoretical physics in the framework of INFN activities, in particular concerning Astroparticle Physics, Gravitational Waves and Quantum Field Theory
1	Funded by IIT – Istituto Italiano di Tecnologia	– Correlative multimodal bioimaging
ADMISSION PROCEDURES		
Assessment of QUALIFICATIONS : up to 50 points 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 .	
APPLICANTS SHALL TAKE THE EXAM REMOTELY. For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.		
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		
<ul style="list-style-type: none">– ANNEX A (art. 5 of the Call for Applications)– Scanned Copy of a valid identification document with photo– Curriculum Vitae et studiorum (art. 4 of the Call for Applications)– Abstract of the second cycle master's degree thesis. Undergraduate applicants must submit the draft of the thesis countersigned by their supervisor– Certificates and academic transcript of records for both Bachelor' and Master' degrees containing the following details for each degree held: (art. 4 of the Call for Applications):<ul style="list-style-type: none">○ 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)

Further qualifications that have to 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 and Statement or Research Interest:** A brief text (max 3 pages) in English. The candidates must describe their research interests and indicate the preferred topic among those listed above, possibly suggesting a second choice theme. For the first choice theme, candidates must outlay an original research project including a concise state of the art, the relevance of the problem and the expected results. Candidates are warmly invited to contact the potential supervisors listed at <http://smfi.unipr.it/it>
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;
- **Any other document** certifying the applicant's training and abilities. Publications, awards, presentations to scientific meeting, stages, fellowships, reference letters, etc.

EVALUATION CRITERIA

QUALIFICATION	EVALUTATION CRITERIA	POINTS
Curriculum Vitae et studiorum	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. Voting examinations and graduation marks will be the most relevant element of the evaluation.	Up to 25 points
Graduation thesis	Consistency of the Master' Degree thesis with the doctoral program research topics. The assessment will make use of the information contained in the abstract (max 1 page) of the thesis (although not yet discussed, in this case countersigned by the thesis supervisor) and in the curriculum, where a brief description of the thesis work should be reported.	Up to 5 points
Research Project and Statement of Research Interest	The project will be evaluated in relation to its scientific value and originality. The motivation expressed by the candidate in relation to the themes of the research doctorate will be evaluated	Up to 10 points
Other qualifications	publications, awards, presentations to scientific meetings, stages, fellowships etc...	Up to 10 points
ORAL EXAMINATION	EVALUATION CRITERIA	POINTS
The ORAL EXAM includes the presentation of the research project and is intended 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"> ○ preparation on the issues related to the Master's degree thesis ○ research project presentation ○ general knowledge of issues connected to the PhD course ○ knowledge of the foreign language 	Up to 70 points



SCHEDULE OF THE ADMISSION EXAMS

ORAL EXAM	DATE	15 September 2020 (with possible extension in the following days)
	TIME	09:30 am (Italian time) The schedule of oral examinations will appear at http://smfi.unipr.it/it
	PLACE	remotely using the Microsoft Teams platform
OTHER INFORMATION	<p>The Oral Exam will focus on the description of the research work carried out to prepare the Graduation Thesis for the Laurea Magistrale/Specialistica, as well as on the research project that the candidate proposes to carry out within the research topics of the Research Doctorate Program in Physics at the Department of Mathematical, Physical and Computer Sciences of the University of Parma which are described at http://smfi.unipr.it/it</p> <p>In the application to participate in the competitive examination, the candidate must choose and specify one research topic. The candidate may indicate a second priority choice. The above choice will be binding with regard to the winner's research activity.</p> <p>For foreign candidates, the admission examinations may be held in English at the candidate's choice.</p>	



CIVIL ENGINEERING AND ARCHITECTURE	
Cycle	XXXVI
Coordinator	Prof. Sandro LONGO Department of Engineering and Architecture email: sandro.longo@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2020
Partner Institution	<ul style="list-style-type: none">New Jersey Institute of Technology (USA)
Thematics	
<ul style="list-style-type: none">Infrastructure and Environmental EngineeringStructural and Geotechnical EngineeringArchitecture and Urban Planning	
Training Objectives	
<p>To develop specialized skills in the following fields:</p> <ol style="list-style-type: none">Infrastructure and Environmental Engineering: civil infrastructures for transport; survey, management, and analysis of land data, control and monitoring of displacements and deformations at all scales; issues related to surface waters and groundwaters;Structural and Geotechnical Engineering: mechanical behaviour of materials, structural components and structures; behaviour of soils and geotechnical structures;Architecture and Urban Planning: theoretical, formal, distributional and functional aspects in architecture; the problems related to methods for survey and to computer-graphics in architecture; issues related to the implementation and the development of urban settlements; historical, artistic, technical and aesthetic themes in the architecture of the past.	
Admission requirements	
<p>Regardless of age and citizenship, candidates with at least one of the following academic qualifications may apply for admission:</p> <ul style="list-style-type: none">- 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 <p>Undergraduate applicants may apply with the obligation to achieve their degree by October 31st 2020.</p>	
POSITIONS PUT OUT TO COMPETITION	
With Scholarship	6
TOTAL	6



Positions with University Scholarship		
N°	Funding entity	Research Topic, if any
4	Scholarship Ministerial funds	---
1	Scholarship co-funded by Fondazione Cariparma	---
1	Funded by the Department of Engineering and Architecture	---
ADMISSION PROCEDURES		
<p>Assessment of QUALIFICATIONS: up to 70 points (a minimum score of 40 points shall be required to be admitted to the Oral Exam)</p> <p>ORAL EXAM: up to 50 points</p> <p>Minimum score for ELIGIBILITY: 70/120</p>		
Foreign Language	The language for which the fluency must be assessed during the Oral Examination: ENGLISH . The assessment of knowledge of this language will be oral and will consist in reading and translating a scientific text.	
APPLICANTS SHALL TAKE THE EXAM REMOTELY. For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.		
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		
<ul style="list-style-type: none">– ANNEX A (art. 5 of the Call for Applications)– Scanned Copy of a valid identification document with photo– Curriculum Vitae et studiorum (art. 4 of the Call for Applications)– Abstract of the second cycle master's degree thesis. Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)– Certificates and academic transcript of records for both Bachelor' and Master' degrees containing the following details for each degree held: (art. 4 of the Call for Applications):<ul style="list-style-type: none">○ 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)		
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)		
<ul style="list-style-type: none">– Research Project: The research project shall consist of a maximum of 3 pages, be written in Italian or in English, on the subject of research specified by the candidate in the application form (ANNEX A), 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, expected results, argumentation.

To identify the topic of the aforementioned Project, the Candidate is advised to contact one of the Faculty Board Members for the Thematics specified in the application form. The proposed themes of research within the three Thematics are listed and described on the site https://dia.unipr.it/en/themes_36_Cycle

The Research Project does not represent a constraint with respect to the following choice of the doctoral thesis, which must be defined together with the supervisor and approved by the Faculty Board;

- **Scientific Publications:** Articles on national and international journals, papers presented at conferences or symposia, book chapters etc.

EVALUATION CRITERIA

QUALIFICATION	EVALUTATION CRITERIA	POINTS
Curriculum Vitae et studiorum	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	Up to 30 points
Graduation thesis	Consistency of the Master's Degree thesis with the doctoral program research topics (briefly describe the topics in the curriculum vitae by attaching the abstract of the degree thesis or draft of the thesis approved by the supervisor)	Up to 10 points
Research Project	Points relating to the research project on the Thematics specified by the candidate in the online application form: <ul style="list-style-type: none"> ○ Scientific value and originality of the proposal: 10 points ○ description and structure of the proposal: 5 points ○ proposal feasibility: 5 points 	Up to 20 points
Scientific publications	Articles on national and international journals, papers presented at conferences or symposia, book chapters: a copy of each article must be mandatorily attached to the on-line application	Up to 10 points
ORAL EXAMINATION	EVALUATION CRITERIA	POINTS
The ORAL EXAM includes the presentation of the research project and is aimed at assessing the candidate's suitability to carry out scientific research activities and general knowledge of the issues related to the PhD programme.	<ul style="list-style-type: none"> ○ knowledge of foreign languages ○ research project presentation ○ general knowledge of issues connected to the PhD course 	Up to 50points

SCHEDULE OF THE ADMISSION EXAMS

ORAL EXAM	DATE	20 September 2020 (with possible extension in the following days)
	TIME	09:30 am (Italian time)
	PLACE	remotely using the Microsoft Teams platform



OTHER INFORMATION

The Oral Exam must be taken in Italian or in English. **If the candidate wishes to take the oral exam in English he/she must attach a formal request to the application form (Form ANNEX A).**

In the application for participation in the competitive examination, the Applicant **must choose and specify only ONE Thematics** (between the 3 possible Thematics), and the Applicant must take the oral exam on the chosen Thematics. During the Oral Exam the candidate must indicate the theme of research of his/her interest among those listed in https://dia.unipr.it/en/themes_36_Cycle

In the case of admission to the PhD programme, the above choice will be binding for the research activity of the winner.

For Applicants who will take the Oral Exam in Italian, knowledge of English will be assessed orally and the test will consist of reading and translating a scientific text.

Foreign Applicants, if they are among the winners of the PhD admission competition, are strongly encouraged to attend an Italian language course. The Faculty Board will recognize the credits based on the level of knowledge acquired.



INDUSTRIAL ENGINEERING	
Cycle	XXXVI
Coordinator	Prof. Gianni ROYER CARFAGNI Department of Engineering and Architecture email: gianni.royer@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2020
Partner Institution for University Cooperation Agreements	<ul style="list-style-type: none">• Universidade Federal de Santa Catarina (Brazil)
Participation with positive results in international calls	<p>PROJECT UE H2020 – MSCA ITN "Innovation Training Networks" INT-ETN "HiStabJuice" project 956257</p> <ul style="list-style-type: none">• Influence of thermal and non-thermal treatments on selected nutrients and the antioxidant capacity of fruit juices and nectars (at the CFT Group company)• Influence of thermal and non-thermal treatments on the shelf-life of fruit juices and nectars (at the SSICA research center)
Research Topics	
<ul style="list-style-type: none">• Theoretical and applied mechanics, mechanics of materials and structures, construction of machinery• Economic, organizational, managerial, plants and legal aspects in the field of engineering• Energetic systems, thermodynamics and fluid dynamics, machinery and energy systems, technical physics	
Training Objectives	
<p>The Industrial Engineering PhD program aims to give participants a deep knowledge in the main topics relevant to industrial engineering. The PhD course presents numerical, analytical and experimental techniques, in order to face any technical or scientific problem of the industrial engineering, with managerial skills, to provide autonomy in work and readiness of inclusion in a collaborative environment with other researchers and technicians. The internationalization phase envisaged in the three-year curriculum allows to forge links with other foreign reality by providing the PhD an additional tool to get into a scientific context not just limited to national borders.</p>	
Admission requirements	
<p>Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission:</p> <ul style="list-style-type: none">- 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 <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2020.</p>	



POSITIONS PUT OUT TO COMPETITION		
With Scholarship		6
Without Scholarship		1
Reserved to employees of companies having an "Industrial Doctorate" arrangement		2
TOTAL		9
Positions with University Scholarship		
N°	Funding entity	Research Topic, if any
3	Scholarship Ministerial funds	---
1	Scholarship University 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 Motesque GmbH Co. KG	<ul style="list-style-type: none"> Multi-flexible-body methods for the simulation of the human body interaction in biomechanism"
Position reserved for "Industrial Doctorate" (according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013)		
N°	Company/Institution	
1	Reserved to employees of Flowserve S.r.l.	
1	Reserved to employees of Murata ID Solutions S.r.l.	
ADMISSION PROCEDURES		
<p>Assessment of QUALIFICATIONS: up to 70 points (a minimum score of 40 points shall be required to be admitted to the Oral Exam) ORAL EXAM: up to 50 points Minimum score for ELIGIBILITY: 70/120</p>		
Foreign Language	<p>Language the fluency of which shall be assessed during the Oral Exam: ENGLISH. The evaluation of the knowledge of this language will be oral and will consist in reading and translating of a scientific text.</p>	
<p style="text-align: center;">APPLICANTS SHALL TAKE THE EXAM REMOTELY.</p> <p style="text-align: center;">For further details please refer to the relevant provision laid down in art. 4 of the Call for applications.</p>		
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 Call for Applications)
- Scanned Copy of a **valid identification document** with photo
- **Curriculum Vitae et studiorum** (art. 4 of the Call for Applications)
- **Abstract of the second cycle master's degree thesis.** Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)
- **Certificates and academic transcript of records for both Bachelor' and Master' degrees** containing the following details for each degree held: (art. 4 of the Call for Applications):
 - 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 of IT 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, argumentation. To identify the topic of the aforementioned project, the candidate may contact one of the Members of the Academic Board (available at: <https://dia.unipr.it/it/node/2834>). The project 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)

- **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 the specific her/his research interests;
- **Scientific Publications:** Articles on national and international journals, contributions presented at conferences or symposia, book chapters. It is necessary to attach a copy to online application;
- **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;
- **Any other document** certifying the applicant's training and abilities (other Master's and/or specialization degree in subjects consistent with the research topics of this PhD program, mobility experience abroad, grants, awards, internships etc.).

EVALUATION CRITERIA

QUALIFICATION	EVALUTATION CRITERIA	POINTS
Curriculum Vitae et studiorum	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	Up to 15 points



Graduation mark	Score related to the final mark: - 110 with honours (magna cum laude): 10 points; - 110: 8 points; - From 105 to 109: up to 6 points; - From 100 to 104: up to 3 points; - From 66 to 99: 0 points The scores will be proportionally renormalized in case of equivalent evaluations	Up to 10 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2020)	Score related to the average of the exam marks: - 30/30: 10 points; - From 28/30 to 29/30: up to 5 points; - From 26/30 to 27/30: up to 3 points; - From 18/30 to 25/30: 0 points; The scores will be proportionally renormalized in case of equivalent evaluations	Up to 10 points
Graduation thesis	Consistency of the Master's Degree thesis with the doctoral program research topics	Up to 10 points
Research Project	Consistency of the Research Project with the doctoral program research topics	Up to 15 points
Statement of Research Interest	Evaluation of the candidate's motivations to attend the doctoral course and congruity of the research interests with the research topics of the doctoral course.	Up to 5 points
Scientific publications	Articles on national and international journals, contributions presented at conferences or symposia, book chapters. It is necessary to attach a copy to online application	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 facilities	Up to 5 points
Other qualifications	other Master's and/or specialization degreee in subjects consistent with the research topics of this PhD program, mobility experience abroad, grants, awards, interships etc	Up to 5 points
ORAL EXAMINATION	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"> ○ research project presentation ○ general knowledge of issues connected to the PhD course ○ knowledge of foreign languages 	Up to 50 points



SCHEDULE OF THE ADMISSION EXAMS

ORAL EXAM	DATE	14 September 2020 (with possible extension in the following days)
	TIME	09:00 am (Italian time)
	PLACE	remotely using the Microsoft Teams platform
OTHER INFORMATION	For foreign candidates, the admission examinations may be held in English at the candidate's choice. All candidates must enclose a form indicating the email to which the Examination Board will send an invitation for the oral test on the Microsoft Teams platform.	



MATHEMATICS	
Cycle	XXXVI
Coordinator	Prof.ssa Alessandra LUNARDI Department of Mathematical, Physical and Computer Sciences email: alessandra.lunardi@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2020
Partner Institution	<ul style="list-style-type: none">• University of Modena e Reggio Emilia• University of Ferrara
Partner Institution for University Cooperation Agreements	<ul style="list-style-type: none">• KU Leuven (Belgium)• Universidade do Minho (Portugal)
Research Topics	
<ul style="list-style-type: none">• Statistical mechanics• Probability• Discrete mathematica and combinatorial geometry• Algebraic and geometric topology of manifolds• Partial differential equations• Differential equations and dynamical systems• Calculus of variations and applications to variational problems• Infinite dimensional analysis• Mathematical models and methods for complex systems• Mathematical methods of quantum mechanics• Modelization and scientific calculus• Numerical methods for integral equations• Numerical optimization and applications• Combinatorial optimization• Sequential, parallel, and real-time algorithms• Hopf algebras and quantum groups• Projective algebraic geometry• Geometry and complex analysis• Differential geometry• History of mathematics• Didactics of mathematics• Thermomechanics of continuous systems• Exterior differential systems• Kinetic methods in physics, economy, and social sciences• Number theory• Artificial intelligence• Automatic reasoning	



Training Objectives

The main aim is to produce highly qualified researchers in the field of Mathematics, with advanced skills on mathematical models and methodologies that can be used also in interdisciplinary applied sciences. This aim will be achieved through series of lectures, conferences, participations to workshops and congresses, research periods in foreign institutions that on one hand introduce the students to the academic research community and on the other side let them establish work relationships along their PhD career and later. Education is addressed to the ability of recognizing significant research problems, to formulate solutions and to transmit knowledge through written works and oral presentations. At the end of the PhD program any Doctor should be able to carry on scientific research autonomously, to produce original considerable scientific results and to integrate into the international scientific community.

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 31st 2020**.

POSITIONS PUT OUT TO COMPETITION

With Scholarship	11
Without Scholarship	1
TOTAL	12

Positions with University Scholarship

N°	<i>Funding entity</i>	<i>Research Topic, if any</i>
3	Scholarship University funds	---
3	Scholarship funded by University of Ferrara	---
3	Scholarship funded by University of Modena e Reggio Emilia	---

Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Call for applications)

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.

N°	<i>Funding entity</i>	<i>BOUND RESEARCH TOPIC</i>
1	Funded by University of Modena e Reggio Emilia – Department of Physics, Informatics and Mathematics (Project NEW CONTROL)	– Analysis and identification of manifold learning techniques for pre-processing neural networks simulations, in order to optimize the algorithms on multi-core platforms for specific safety critical applications such as autonomous driving



1	Funded by University of Modena e Reggio Emilia – Department of Physics, Informatics and Mathematics (Project CLASS)	– Study and implementation of RT (Real Time) scheduling algorithms for fog computing applications in urban-smart city environments, on heterogeneous multi/many-core embedded platforms
1	POSITION WITHOUT SCHOLARSHIP (Project CEMP)	– Analysis, development and testing of active safety algorithms (Speed limiter, Forward Collision Warning and Blind Spot detection) and interaction with the dynamics of a 2-wheel vehicle

ADMISSION PROCEDURES

Assessment of QUALIFICATIONS: up to 60 points
(a minimum score of 30 points shall be required to be admitted to the Oral Exam)

ORAL EXAM: up to 60 points

Minimum score for ELIGIBILITY: 70/120

Foreign Language

Language the fluency of which shall be assessed during the Oral Exam: **ENGLISH**.
The evaluation of the knowledge of this language will be oral and will consist in conversation and translation of a scientific text.

APPLICANTS SHALL TAKE THE EXAM REMOTELY.

For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.

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 Call for Applications)
- Scanned Copy of a **valid identification document** with photo
- **Curriculum Vitae et studiorum** (art. 4 of the Call for Applications)
- **Abstract of the second cycle master's degree thesis.** Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)
- **Certificates and academic transcript of records for both Bachelor' and Master' degrees** containing the following details for each degree held: (art. 4 of the Call for Applications):
 - 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)

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 2 pages – in Italian or in English, aimed at explaining the candidate's reasons to attend the PhD program and at describing the specific her/his research interests. It may contain the proposal for a research project;



- **Scientific Publications:** Articles on national and international journals, contribution presented at conferences or symposia, book chapters etc.
- **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:** 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
- **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
Curriculum Vitae et studiorum	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.	Up to 10 points
Graduation thesis	Scientific content and presentation	Up to 20 points
Statement of Research Interest	Candidate's maturity and depth in the presentation of her/his interests, her/his motivation and a possible research project	Up to 20 points
Scientific publications	Scientific relevance of the results and their editorial positioning	Up to 5 points
Reference Letters	Significant presentation of the candidates in the letters, relevance of the qualifications for the PhD purposes.	Up to 5 points
ORAL EXAMINATION	EVALUATION CRITERIA	POINTS
The ORAL PROOF consists in a presentation and discussion of the scientific interests of the candidate; it aims to find out the aptitude of the candidate for scientific research and her/his general knowledge of basic topics relevant to the subject matters of the PhD course	<ul style="list-style-type: none"> ○ knowledge of foreign languages: max 10 points ○ good argument concerning research interests: max 25 points ○ preparation on the topic of the PhD course: max 25 points 	Up to 60 points

SCHEDULE OF THE ADMISSION EXAMS

ORAL EXAM	DATE	16 September 2020 (with possible extension to 17 September 2020 and the following days)
	TIME	09:00 am (Italian time)
	PLACE	remotely using the Microsoft Teams platform
OTHER INFORMATION	For foreign candidates, the admission examinations may be held in English at the candidate's choice.	



MOLECULAR MEDICINE	
Cycle	XXXVI
Coordinator	Prof. Prisco MIRANDOLA Department of Medicine and Surgery email: prisco.mirandola@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2020
Partner Institution	<ul style="list-style-type: none">Aalborg University (Denmark)
Research Topics	
<ul style="list-style-type: none">Clinical Biochemistry and Clinical Molecular BiologyMaxillofacial SurgeryCardiac ElectrophysiologyPharmacology of lipid metabolism and associated disordersCardiovascular DiseasesDigital Dentistry	
Training Objectives	
<p>The Research Doctorate Course in Molecular Medicine aims to provide PhD students with the cultural and methodological skills necessary to carry out high-profile research in different scientific disciplines in the biomedical field, integrated in an interdisciplinary perspective. The acquired training will allow PhDs in Molecular Medicine to employ themselves in high level research and development activities in Universities, research centers and industries engaged in the medical, biological and biotechnological sectors.</p>	
Admission requirements	
<p>Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission:</p> <ul style="list-style-type: none">- 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 <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2020.</p>	
POSITIONS PUT OUT TO COMPETITION	
With Scholarship	5
Without Scholarship	1
TOTAL	6



Positions with University Scholarship		
N°	Funding entity	Research Topic, if any
3	Scholarship Ministerial funds	---
1	Scholarship University funds	---
1	Scholarship co-funded by Fondazione Cariparma	---
ADMISSION PROCEDURES		
Assessment of QUALIFICATIONS: up to 60 points (a minimum score of 10 points shall be required to be admitted to the Oral Exam) ORAL EXAM: up to 60 points Minimum score for ELIGIBILITY: 70/120		
Foreign Language	Language the fluency of which shall be assessed during the Oral Exam: ENGLISH . The evaluation of the knowledge of this language will be by an oral examination and will consist in translating of a scientific text.	
APPLICANTS SHALL TAKE THE EXAM REMOTELY. For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.		
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">– ANNEX A (art. 5 of the Call for Applications)– Scanned Copy of a valid identification document with photo– Curriculum Vitae et studiorum (art. 4 of the Call for Applications)– Abstract of the second cycle master's degree thesis. Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)– Certificates and academic transcript of records for both Bachelor' and Master' degrees containing the following details for each degree held: (art. 4 of the Call for Applications):<ul style="list-style-type: none">○ 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)		
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)		
<ul style="list-style-type: none">– 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 of IT tools useful for verifying the originality of the submitted Project), it shall be congruent with the research topic indicated in the ANNEX A and be so structured: introduction of the problem in the scientific context, significance of the problem, expected results, argumentation. <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;		



- **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, contributions presented at conferences or symposia, book chapters etc.
- **Reference Letters:** A maximum of 3 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:** 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
- **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
Curriculum Vitae et studiorum	Including academic career, 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, and postgraduate experiences, including any awards.	Up to 10 points
Graduation mark	Score related to the final mark: - 110 with honours (magna cum laude): 5 points; - 110: 3 points; - From 100 to 109: 0,2 point for each mark unit	Up to 5 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2020)	Score related to the average of the exam marks: - > 28/30: 5 points - > 27/30: 3 points - > 25/30: 1 point	Up to 5 points
Graduation thesis	Consistency with the research themes of the PhD course and quality of the research methodology	Up to 7 points
Research Project	<ul style="list-style-type: none"> ○ scientific value and originality ○ articulation of the proposal ○ research feasibility ○ rigor and appropriateness methodological 	Up to 10 points
Statement of Research Interest	Clarity, maturity, motivation and expectations	Up to 10 points
Scientific publications	Evaluation of the candidate's contribution and the editorial location of the product.	Up to 10 points
Reference Letters	one point per letter	Up to 3 points
Other qualifications	Academic qualifications/experience abroad/grants, scholarships and awards	Up to 10 points



ORAL EXAMINATION	EVALUATION CRITERIA	POINTS
The ORAL EXAM focuses on the discussion of the Degree Thesis and of a subject related to the chosen doctoral program research topics and selected by drawing lots.	<ul style="list-style-type: none">○ discussion of the thesis○ knowledge of chosen topic○ proficiency in the foreign language	Up to 60 points

SCHEDULE OF THE ADMISSION EXAMS

ORAL EXAM	DATE	15 September 2020
	TIME	09:30 am (Italian time)
	PLACE	remotely using the Microsoft Teams platform



NEUROSCIENCES		
Cycle	XXXVI	
Coordinator	Prof. Vittorio GALLESE Department of Medicine and Surgery email: vittorio.gallese@unipr.it	
Duration	3 years	
Starting date of the PhD program	01/11/2020	
Research Topics		
<ul style="list-style-type: none">• Integrative neurosciences: comparative neurophysiology and neuroethology, cognitive and social neuroscience, cognitive psychology, psychology of perception and action, psychobiology, psychophysiology• Behavioural Biology: biological basis of social, agonistic and parental behaviour, gene-environment interactions on development of behaviour, cognitive ethology and ethology of emotions in non-human and human animals		
Training Objectives		
<ul style="list-style-type: none">• To give a global and interdisciplinary view of the proposed research fields providing a deep research focus.• To acquire skills and abilities in the autonomous use of at least one neuroscientific technique.• To promote the effective dissemination of the research through the development of national and international scientific networks.		
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 31st 2020 .		
POSITIONS PUT OUT TO COMPETITION		
With Scholarship		6
Without Scholarship		1
Reserved to holders of scholarship within specific internationale mobility programs		1
	TOTAL	8
Positions with University Scholarship		
N°	Funding entity	Research Topic
4	Scholarship Ministerial funds	– Integrative neurosciences
1	Scholarship co-funded by Fondazione Cariparma	– Behavioural Biology



Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Call for applications)

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.

N°	Funding entity	BOUND RESEARCH TOPIC
1	Funded by the Department of Medicine and Surgery (Project MIUR "GANGLIA" R16PWSFBPL)	– Neurophysiological mechanisms underlying the encoding of executed and observed actions in cortico-basal ganglia circuits

Reserved to holders of scholarship within specific internationale mobility programs

N°	Agreements/Cooperations/Mobility Programs
1	Reserved to holders under the Project of the Italian Space Agency "MARSE-PRE: Biological and functional markers for precision astronautic medicine"

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 (of which 20 points reserved for presentation of the research project)

Minimum score for ELIGIBILITY: 70/120

ADMISSION PROCEDURES for positions reserved to holders of scholarship within specific international mobility programs

Assessment of QUALIFICATIONS: up to 80 points
(a minimum score of 50 points shall be required to be admitted to the Oral Exam)

ORAL EXAM: up to 40 points
(of which 30 points reserved for presentation of the research project and 10 points for the knowledge of English language)

Minimum score for ELIGIBILITY: 70/120

Foreign Language

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

APPLICANTS SHALL TAKE THE EXAM REMOTELY.

For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.

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 Call for Applications)
- Scanned Copy of a **valid identification document** with photo
- **Curriculum Vitae et studiorum** (art. 4 of the Call for Applications)
- **Abstract of the second cycle master's degree thesis**. Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)



- **Certificates and academic transcript of records for both Bachelor' and Master' degrees** containing the following details for each degree held: (art. 4 of the Call for Applications):
 - 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 of IT 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, methodology and experimental design/data analysis, 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)

- **Scientific Publications:** Articles on national and international journals, papers presented at conferences or symposia, book chapters etc.
- **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
- **Mobility experience abroad** (e.g. Erasmus or similar);
- **Any other document** certifying the applicant's training and abilities (scholarships or research grants, contracts relating to the topics covered during the PhD course, awards etc).

EVALUATION CRITERIA

QUALIFICATION	EVALUTATION CRITERIA	POINTS
Curriculum Vitae et studiorum	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.	Up to 40 points
The candidate's Curriculum Vitae et Studiorum will be evaluated based on the following qualifications and scores:		
Graduation mark	Score related to the final mark: <ul style="list-style-type: none">- 110 with honours (magna cum laude): 10 points- 110: 7 points;- From 105 to 109: 4 points;- Under 105: 0 points	Up to 10 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2020)	Score related to the average of the exam marks: <ul style="list-style-type: none">- From 29/30 to 30/30: 10 points- From 27/30 to 28.9/30: 8 points- Under 27/30: 0 points	Up to 10 points



Graduation thesis	<ul style="list-style-type: none"> ○ Experimental thesis related to the PhD program of Neuroscience: 10 points ○ Non-experimental and relevant thesis: 5 points ○ Thesis not relevant: 0 points 	Up to 10 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 ground-breaking nature of the proposal: 2.5 points ○ description and structure of the proposal: 2.5 points ○ proposal feasibility: 2.5 points ○ originality of the proposal: 2.5 points 	Up to 10 points
Scientific publications	<ul style="list-style-type: none"> ○ Each article in a peer-reviewed international journal: 1 point ○ Each book chapter: 0.4 points ○ abstracts/papers/posters presented at conferences or symposia: 0.3 points <p>The same categories are half valued if in Italian. The points of the publications are normalized for post-graduate years, that is, divided by the numbers of post-graduate years.</p>	Up to 5 points
Other qualifications	<p>1 point for every important post-graduate experience (research grant, scholarship, non-curricular internships, mobility experience abroad, a post graduate master's degree, specialization degree, etc.)</p>	Up to 5 points
ORAL EXAMINATION	EVALUATION CRITERIA	POINTS
<p>The ORAL examination includes:</p> <p>A1) Neurosciences: the oral report on 2 topics chosen by lot from those indicated in the list below:</p> <ol style="list-style-type: none"> 1) The origin of the nervous impulses 2) The synapses 3) The reflexes 4) Molecular and cellular bases of signal transduction 5) The motor system 6) The visual system 7) The somatosensory system 8) The autonomic nervous system 9) Neurobiology of language 10) Neurobiology of attention 11) Neurobiology of emotions 12) Memory and learning <p>A2) Behavioural Biology: the oral report on 2 topics chosen by lot from those indicated in the list below:</p>	<ul style="list-style-type: none"> ○ Up to 40 points for the oral report on the two topics extracted (up to 20 points per topic) ○ Up to 20 points for the project presentation ○ Up to 20 points for knowledge of the foreign language 	Up to 80 points



<ol style="list-style-type: none"> 1) Individual and social learning 2) Imprinting and development of behavior 3) Genetic and epigenetic of behavior 4) Parental effort and sexual selection 5) Social behavior, reproductive systems and parental care 6) Aggression, assault and social hierarchies 7) Hormones, neurotransmitters and behavior 8) Parental selection and altruism 9) Behavioral evolution 10) Communication and emotions emozioni <p>B) The presentation and discussion of the research project, aimed at verifying the candidate's aptitude for scientific research</p>		
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LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT
Positions reserved to holders of scholarship within specific international mobility programs

Curriculum Vitae et studiorum	Including academic career and postgraduate experience	Up to 80 points
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The candidate's Curriculum Vitae et Studiorum will be evaluated based on the following qualifications and scores

Graduation mark	Score related to the final mark: - 110 with honours (magna cum laude): 10 points - 110: 7 points; - From 105 to 109: 4 points; - Under 105: 0 points	Up to 10 points
Graduation thesis	<ul style="list-style-type: none"> ○ Experimental thesis / meta-analysis related to the PhD program of Neurosciences – curriculum Behavioural Biology: 10 points ○ Non-experimental and relevant thesis: 5 points ○ Thesis not relevant: 0 points 	Up to 10 points
Research Project	Relevance of the presented research project to the aims of the Italian Space Agency project "MARSE-PRE: Biological and functional markers for precision astronautic medicine"	Up to 50 points
Statement or Research Interest	Relevance of the research topics of Neurosciences PhD-curriculum Behavioural Biology and to the aims of the Italian Space Agency project "MARSE-PRE: Biological and functional markers for precision astronautic medicine"	Up to 3 points



Scientific publications	<ul style="list-style-type: none">○ Each article in a peer-reviewed international journal: 2 points○ Each book chapter: 1.5 points○ abstracts/papers/posters presented at conferences or symposia: 1 point <p>The points of the publications are normalized for post-graduate years, that is, divided by the numbers of post-graduate years.</p>	Up to 3 points
Reference Letters	Presentation of the candidate by researchers and teachers of recognized scientific competence	Up to 1 points
Other qualifications	2 points for every important post-graduate experience 1 point for every important pre-graduate experience (research grant, scholarship, non-curricular interships, mobility experience abroad, post graduate master's degree, specialization degreee, etc)	Up to 3 points

SCHEDULE OF THE ADMISSION EXAMS

ORAL EXAM	DATE	15 September 2020
	TIME	09:00 am (Italian time)
	PLACE	remotely using the Microsoft Teams platform



PSYCHOLOGY		
Cycle	XXXVI	
Coordinator	Prof.ssa Luisa MOLINARI Department of Humanities, Social Sciences and Cultural Industries email: luisa.molinari@unipr.it	
Duration	3 years	
Starting date of the PhD program	01/11/2020	
Partner Institution for University Cooperation Agreements	<ul style="list-style-type: none">• Universitat Autònoma de Barcelona (Spain)• Universidad de Málaga (Spain)	
Research Topics		
<ul style="list-style-type: none">• Psychosocial processes in complex societies• Learning and developmental processes• Clinical and dynamic processes in life contexts		
Training Objectives		
Training researchers able to project and realize studies in basic or applied psychology, with a special emphasis on social, educational and clinical contexts.		
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 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 31st 2020 .		
POSITIONS PUT OUT TO COMPETITION		
With Scholarship		3
Reserved to employees of companies having an "Industrial Doctorate" arrangement		2
	TOTAL	5
Positions with University Scholarship		
N°	Funding entity	Research Topic, if any
2	Scholarship Ministerial funds	---
1	Scholarship co-funded by Fondazione Cariparma	---



Position reserved for "Industrial Doctorate" (according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013)	
N°	Company/Institution
1	Reserved to employees of LATTANZIO Learning S.r.l.
1	Reserved to employees of Fondazione Bambini e Autismo ONLUS
ADMISSION PROCEDURES	
Assessment of QUALIFICATIONS: up to 60 points (a minimum score of 35 points shall be required to be admitted to the Oral Exam) ORAL EXAM: up to 60 points Minimum score for ELIGIBILITY: 70/120	
Foreign Language	Language the fluency of which shall be assessed during the Oral Exam: ENGLISH . The evaluation of the knowledge of this language will be oral and will consist in reading and translating of a scientific text.
APPLICANTS SHALL TAKE THE EXAM REMOTELY. For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.	
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	
<ul style="list-style-type: none">– ANNEX A (art. 5 of the Call for Applications)– Scanned Copy of a valid identification document with photo– Curriculum Vitae et studiorum (art. 4 of the Call for Applications)– Abstract of the second cycle master's degree thesis. Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)– Certificates and academic transcript of records for both Bachelor' and Master' degrees containing the following details for each degree held: (art. 4 of the Call for Applications):<ul style="list-style-type: none">○ 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 2500 words, be written in Italian or in English, and it must be an original research project (inedited, unpublished, personally developed by the candidate) and be structured as follows: theoretical introduction, relevance of the problem, research design and methodology, expected results and discussion, essential bibliography (maximum 5 bibliographic entries) The Research Project <u>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)

- **Scientific Publications:** Articles on national and international journals, reports presented at conferences or symposia, book chapters etc.
- **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
- **Mobility experience abroad** (e.g. Erasmus or similar);
- **Other qualifications:** study or research experiences abroad, prizes, scholarships and research grants (will be taken into consideration only if clearly documented).

EVALUATION CRITERIA

QUALIFICATION	EVALUTATION CRITERIA	POINTS
Graduation mark Or Average of the exam marks (if the candidate will attain the degree no later than 31 October 2020)	Score related to the final mark: - 110 and 110 with honours (magna cum laude): 10 points; - From 100 to 109: 8 points - Under 99: 5 points Score related to the average of the exam marks: - 30/30: 10 points - From 27/30 to 29/30: 8 points; - Under 26/30: 5 points	Up to 10 points
Abstract of the Graduation thesis	Consistency with the research themes of the PhD course and quality of the research methodology	Up to 5 points
Research Project	<ul style="list-style-type: none"> ○ Scientific value and internal consistency: 20 points (aspects that will be considered: validity of the theoretical formulation, relevance of the problem faced, clarity of the objectives and appropriateness of the methodology, consistency of the expected results and relative discussion) ○ Formal and grammatical aspects: 4 points ○ Congruence with the research themes of the PhD course: 4 points 	Up to 28 points
The candidate's Curriculum Vitae et Studiorum will be evaluated based on the following qualifications and scores:		
Scientific publications	Articles on national and international journals, papers presented at conferences or symposia, book chapters etc	Up to 10 points
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 programme	Up to 5 points
Other qualifications	study or research experiences abroad, prizes, scholarships and research grants (documented)	Up to 2 points
ORAL EXAMINATION	EVALUATION CRITERIA	POINTS
The ORAL EXAM focuses on the knowledge of the English language, on the discussion of the research project, on the knowledge related to the research themes of the PhD programme	<ul style="list-style-type: none"> ○ knowledge of foreign languages (English): 10 points ○ discussion and argumentation of the project: 35 points ○ knowledge on at least one of the themes of the PhD programme: 15 points 	Up to 60 points



SCHEDULE OF THE ADMISSION EXAMS

ORAL EXAM	DATE	17 September 2020
	TIME	09:30 am (Italian time)
	PLACE	remotely using the Microsoft Teams platform
OTHER INFORMATION	For foreign candidates, the admission examinations may be held in English.	



MATERIALS SCIENCE AND TECHNOLOGY	
Cycle	XXXVI
Coordinator	Prof. Enrico DALCANALE Department of Chemistry, Life Sciences and Environmental Sustainability email: enrico.dalcanale@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2020
Partner Institution	<ul style="list-style-type: none">The Italian National Research Council (C.N.R.)
Partner Institution for University Cooperation Agreements	<ul style="list-style-type: none">Kazan University (Russia)
Research Topics	
<ul style="list-style-type: none">Photovoltaic devicesFunctional materialsStrongly correlated systemsNanodiagnosicsNanostructured materialsSupramolecular sensors and devicesSemiconductive massive crystalsLow dimensionality semiconductive structuresSelf-healing and self-diagnostic polymersSurface supported molecular materialsMagnetic materials and magneto-refrigerationCeramic and composite materialsMaterials and devices for memristic devices and for bioelectronics	
Training Objectives	
<p>The PhD program in Materials Science aims at the preparation of PhDs equipped with strong scientific background and wide research experience in materials science. Enrollment is open to MS laureates in Materials Science, Chemistry, Physics, Industrial Chemistry, Engineering and Biological Sciences. The Board provides a wide range of courses and seminars in different scientific areas, with particular focus on all aspects of materials science (synthesis, characterization, functions and devices). It also offers soft skills courses. The PhD program offers an interdisciplinary preparation through research activity, also in collaboration with foreign Institutions.</p>	
Admission requirements	
<p>Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission:</p> <ul style="list-style-type: none">- 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 <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2020.</p>	



POSITIONS PUT OUT TO COMPETITION		
With Scholarship		9
Reserved to holders of Research Grant		5
TOTAL		14
Positions with University Scholarship		
N°	Funding entity	Research Topic
3	Scholarship Ministerial funds	<ul style="list-style-type: none"> – Fluorescent materials for bioimaging – Development and study of functional nanostructured materials by advanced analytical microscopy – Synthesis and structural characterization of new multiferroic materials
1	Scholarship University funds	<ul style="list-style-type: none"> – Advanced Material Modeling of functional molecular materials
1	Scholarship funded by The Italian National Research Council (C.N.R.)	<ul style="list-style-type: none"> – Innovative biosensing materials
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
2	Funded by the Department of Chemistry, Life Sciences and Environmental Sustainability	<ul style="list-style-type: none"> – Experimental and computational study of crystallization kinetics in colloidal nanocrystals for application in functional materials for mechanics and catalysis – Covalent adaptable polymer networks with damage reporting properties
1	Funded by IIT – Italian Institute of Technology	<ul style="list-style-type: none"> – Electron nano-crystallography of materials
1	Cofounded by Industrie Bitossi S.p.A. and by The Italian National Research Council (C.N.R.)	<ul style="list-style-type: none"> – High efficiency sintering of ceramic materials with extreme hardness and mechanical strength for applications in harsh environments
Position reserved to holders of Research Grant		
N°	Subject area of the research	
5	ISTECC – Institute of Science and Technology for Ceramics <ol style="list-style-type: none"> 1. Hybrid biomaterials for medical applications 2. Bioactive ceramics and nanotechnologies for medicine 3. Nanomaterials for human and environment protection 4. Nanomaterials for human and environment protection 5. Nanostructured functional coatings 	



ADMISSION PROCEDURES

Assessment of QUALIFICATIONS: up to 60 points
(a minimum score of 10 points shall be required to be admitted to the Oral Exam)

ORAL EXAM: up to 60 points

Minimum score for ELIGIBILITY: 70/120

Foreign Language	Language the fluency of which shall be assessed during the Oral Exam: ENGLISH . The evaluation of the knowledge of this language will be oral and will consist in translating of a scientific text.
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CANDIDATES ADMITTED TO THE ORAL TEST CAN TAKE THE EXAM REMOTE IN AUDIO AND VIDEO TELECONFERENCE OR IN PRESENCE

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 Call for Applications)
- Scanned Copy of a **valid identification document** with photo
- **Curriculum Vitae et studiorum** (art. 4 of the Call for Applications)
- **Abstract of the second cycle master's degree thesis.** Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)
- **Certificates and academic transcript of records for both Bachelor' and Master' degrees** containing the following details for each degree held: (art. 4 of the Call for Applications):
 - 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)

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)

- **Final mark of graduation**
- **List of exams and corresponding scores** (academic transcript of records)
- **Statement of Research interest:** Short text – maximum 2 pages – in Italian or in English, aimed at explaining the candidate's willingness to attend the PhD and at describing the specific research interests
- **Scientific Publications:** Articles and/or reviews in scientific journals with peer reviewing, abstracts of papers or posters presented at conventions or meetings.

EVALUATION CRITERIA

QUALIFICATION	EVALUTATION CRITERIA	POINTS
Curriculum Vitae et studiorum	Including academic career and postgraduate experience, accompanied with a statutory declaration in lieu of the certification of the exams passed with the relevant marks, as well as the final graduation mark	Up to 20 points



Graduation mark	Score related to the final mark: - 110 with honors (magna cum laude): 20 points - 110: 16 points - From 105 to 109: 12 points - From 100 to 104: 8 points - From 95 to 99: 4 points - Under 95: 0 points	Up to 20 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2020)	Score related to the average of the exam marks: - 30/30: 20 points - From 28/30 to 29/30: 16 points - From 26/30 to 27/30: 12 points - 25/30: 8 points - 24/30: 4 points - Under 24/30: 0 points	Up to 20 points
Graduation thesis	Consistency of the Master's Degree thesis with the doctoral program research topics (briefly describe the topics in the curriculum vitae)	Up to 10 points
Statement of Research Interest	Short text – maximum 2 pages – in Italian or in English, aimed at explaining the candidate's reasons to attend the PhD and at describing the specific research interests	Up to 5 points
Scientific publications	Articles and/or reviews in scientific journals with peer reviewing, abstracts of papers or posters presented at conventions or meetings	Up to 5 points
ORAL EXAMINATION	EVALUATION CRITERIA	POINTS
The ORAL EXAM will focus on the candidate's motivation to attend the PhD, on the description of his specific research interests and on a discussion of the qualifications presented by the candidate.	<ul style="list-style-type: none"> ○ knowledge of foreign languages: 10 points ○ general knowledge of issue connected to the Master thesis: 25 points ○ general knowledge of issues connected to the PhD course: 25 points 	Up to 60 points
SCHEDULE OF THE ADMISSION EXAMS		
ORAL EXAM	DATE	17 September 2020 (with possible extension to 18 September 2020)
	TIME	09:00 am (Italian time)
	PLACE	Department of Chemistry, Life Sciences and Environmental Sustainability Chemical Building Parco Area delle Scienze, 27/A – 43124 PARMA - ITALY
OTHER INFORMATION	For foreign candidates, the admission examinations may be held in English at the candidate's choice.	



CHEMICAL SCIENCES	
Cycle	XXXVI
Coordinator	Prof.ssa Alessia BACCHI Department of Chemistry, Life Sciences and Environmental Sustainability email: alessia.bacchi@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2020
Research Topics	
<p>A) A bio-inorganic approach to the design and development of substances with antibacterial, antifungal, antiviral and anticancer properties</p> <p>B) Synthesis and study of multivalent ligands for biomacromolecules and pathogens</p> <p>C) Nanostructured functional materials containing peptide nucleic acids (PNA) for biomedical applications and precision nanomedicine.</p> <p>D) Design and fabrication of stimuli responsive crystalline functional materials</p> <p>E) From linear molecules to complex fused polycycles via domino reactions –</p> <p>F) Development and validation of smart and portable biosensing devices for Point of Care Testing applications</p> <p>G) Innovative analytical strategies for food quality and safety assessment (within the project PRIN 2017, 2017YER72K: Development of novel DNA-based analytical platforms for the rapid, point-of-use quantification of multiple hidden allergens in food samples)</p> <p>H) Enhancing stability and physical and technological properties of APIs through the design and synthesis of binary systems with endogenous (bound research topic)</p>	
Training Objectives	
<p>The training program aims to provide the PhD in Chemical Sciences the necessary skills to propose and manage research projects in the advanced fields of Analytical Chemistry, General and Inorganic Chemistry, Physical Chemistry, Industrial Chemistry, and Organic Chemistry . The PhD course in Chemical Sciences requires each student to work within one of the research groups active at the Chemistry Unit of the Department of Chemistry, Life Sciences and Environmental Sustainability (SCVSA), and to follow a specific training pathway in the chosen sector; this is achieved also through: participation in research activities at qualified centers both in Italy and abroad, participation to national and international schools and conferences, and through the publication of scientific results in international journals. Interdisciplinary training activities, aimed at developing PhD students the ability to exhibit, discuss and disseminate the subjects of their work both in the academic and industrial context and even more generally in society, are also part of the program.</p>	
Admission requirements	
<p>Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission:</p> <ul style="list-style-type: none">- 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 <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2020.</p>	



POSITIONS PUT OUT TO COMPETITION		
With Scholarship		8
TOTAL		8
Positions with University Scholarship		
N°	Funding entity	Research Topic
3	Scholarship Ministerial funds	– see topics at points A) – E) above
1	Scholarship University funds	– see topics at points A) – E) above
1	Funded by the Department of Chemistry, Life Sciences and Environmental Sustainability (within the project PRIN 2017, 2017YER72K: Development of novel DNA-based analytical platforms for the rapid, point-of-use quantification of multiple hidden allergens in food samples)	– topic G) "Innovative analytical strategies for food quality and safety assessment"
1	Funded by the Department of Chemistry, Life Sciences and Environmental Sustainability (funds of Departments of Excellence program)	– see topics at points A) – E) above
1	Scholarship co-funded by Fondazione Cariparma	– topic F) "Development and validation of smart and portable biosensing devices for Point of Care Testing applications"
Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Call for applications)		
<p>Research topic H requires the assessment of specific skills, experience and competences for the applicants. During the Oral Exam, applicants may express their interest in being assigned the scholarship linked to the research topic H. The Board will evaluate the eligibility of the applicant.</p>		
N°	Funding entity	BOUND RESEARCH TOPIC
1	Funded by Biopharmanet TEC – Centro Interdipartimentale di Ricerca per l'Innovazione dei Prodotti per la Salute	– topic H) "Enhancing stability and physical and technological properties of APIs through the design and synthesis of binary systems with endogenous
ADMISSION PROCEDURES		
<p>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</p>		
Foreign Language	<p>Language the fluency of which shall be assessed during the Oral Exam: ENGLISH. The evaluation of the knowledge of this language will be oral and will consist in the discussion of part of the research topics in English.</p>	
<p>APPLICANTS SHALL TAKE THE EXAM REMOTELY. For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.</p>		
<p>THE INTERVIEW MAY BE HELD ALSO IN ENGLISH</p>		



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 Call for Applications)
- Scanned Copy of a **valid identification document** with photo
- **Curriculum Vitae et studiorum** (art. 4 of the Call for Applications)
- **Abstract of the second cycle master's degree thesis.** Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)
- **Certificates and academic transcript of records for both Bachelor' and Master' degrees** containing the following details for each degree held: (art. 4 of the Call for Applications):
 - 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)
- **Statement of Research Interest:** Short text – maximum 1 page – in Italian or in English, aimed at: 1) explaining the candidate's reasons to attend the PhD programme; 2) research interests, with particular reference to topics of interest in the specific topics proposed; 3) skills that can contribute to a research project in the field of Chemical Sciences.

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)

- **Scientific Publications:** Articles on scientific journals with referees, communications presented at conferences or symposia, book chapters etc.;
- **Participation in Schools or training courses** related to Chemical Sciences
- **Any awards** received related to Chemical Sciences

EVALUATION CRITERIA

QUALIFICATION	EVALUTATION CRITERIA	POINTS
Curriculum Vitae et studiorum	Relevance of the academic career as well as postgraduate experiences and other research activities related to Chemical Sciences	Up to 15 points
Graduation mark or Average of the exam marks (if the candidate will attain the degree no later than 31 October 2020)	Assignment of a score related to the final mark or, for candidates who will attain the degree no later than 31 October 2020, a score related to the average of the exam marks	Up to 5 points
Graduation thesis	Consistency of the Master's Degree thesis with the doctoral programme research topics	Up to 10 points
Statement of Research Interest	Motivation and competence proved in the text presented	Up to 5 points
Scientific publications and other qualifications	Impact and relevance of the qualifications presented related to Chemical Sciences	Up to 5 points



ORAL EXAMINATION		EVALUATION CRITERIA	POINTS
<p>The ORAL EXAM takes place in Italian or in English for foreign candidates. It includes a discussion of the qualifications presented by the candidate and an assessment of their scientific profile and design skills.</p>		<ul style="list-style-type: none">○ knowledge of the subject and skills of the candidate for the proposed research activities are assessed by a discussion on the qualifications submitted for evaluation○ knowledge of English is assessed by discussion of topics of research and by understanding of scientific texts.	Up to 80 points
SCHEDULE OF THE ADMISSION EXAMS			
ORAL EXAM	DATE	14 September 2020 (with possible extension in the following days)	
	TIME	09:00 am (Italian time)	
	PLACE	remotely using the Microsoft Teams platform	



FOOD SCIENCE	
Cycle	XXXVI
Coordinator	Prof.ssa Chiara DALL'ASTA Food and Drug Department email: chiara.dallasta@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2020
Partner Institution for University Cooperation Agreements	<ul style="list-style-type: none">• Universitat Rovira i Virgili (Spagna)• Universidad Politécnica de Cartagena (Spagna)
Research Topics	
<ul style="list-style-type: none">• The use of genomics to tackle the genetic background of cheese making traits• Metabotyping by production of phenolic metabolites for personalized nutritional approaches• Microstructure modification in vegetables undergoing conventional, innovative and non-thermal processing• New tools for authentication and traceability to assure the integrity of food chain• Complex microbial starters as a tool for boosting innovative and sustainable food production• Innovation in fruits and vegetables processing: application and optimization of thermal and non-thermal emerging technologies• High Resolution Mass Spectrometry and food fraud: analytical methods development and food safety	
Training Objectives	
The PhD candidates will acquire advanced theoretical and practical expertise to provide innovative approaches and methodologies in the agro-food sector, under a multidisciplinary perspective.	
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 31st 2020 .	
POSITIONS PUT OUT TO COMPETITION	
With Scholarship	5
Reserved to employees of companies having an "Industrial Doctorate" arrangement	2
TOTAL	7



Positions with University Scholarship		
N°	Funding entity	Research Topic
4	Scholarship Ministerial funds	<ul style="list-style-type: none">– Human Nutrition– Food Microbiology– Food Inspection– Animal Nutrition
1	Scholarship co-funded by Fondazione Cariparma	<ul style="list-style-type: none">– Agronomy and food technology
Position reserved for "Industrial Doctorate" (according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013)		
N°	Company/Institution	Research Topic
1	Reserved to employees of John Bean Technologies S.p.A.	<ul style="list-style-type: none">– Innovation in fruits and vegetables processing: application and optimization of thermal and non-thermal emerging technologies
1	Reserved to employees of Waters S.p.A.	<ul style="list-style-type: none">– High Resolution Mass Spectrometry and food fraud: analytical methods development and food safety
ADMISSION PROCEDURES		
<p>Assessment of QUALIFICATIONS: up to 30 points (a minimum score of 18 points shall be required to be admitted to the Oral Exam)</p> <p>ORAL EXAM: up to 90 points</p> <p>Minimum score for ELIGIBILITY: 70/120</p>		
Foreign Language	Language the fluency of which shall be assessed during the Oral Exam: ENGLISH . The evaluation of the knowledge of this language will be oral and will consist in reading and translating of a scientific test. For foreign candidates, basic knowledge of ITALIAN LANGUAGE will also be assessed.	
APPLICANTS SHALL TAKE THE EXAM REMOTELY.		
For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.		
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		
<ul style="list-style-type: none">– ANNEX A (art. 5 of the Call for Applications)– Scanned Copy of a valid identification document with photo– Curriculum Vitae et studiorum (art. 4 of the Call for Applications)– Abstract of the second cycle master's degree thesis. Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)– Certificates and academic transcript of records for both Bachelor' and Master' degrees containing the following details for each degree held: (art. 4 of the Call for Applications):		



- 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)

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 2 pages, be written in English, focused on an original research topic (**unpublished, developed personally by the candidate. It should be noted that the Examination Board can use of IT tools useful for verifying the originality of the submitted Project**), concerning one of the specific topic indicated in this notice and it shall be structured as follows: introduction of the problem in the scientific context, significance of the problem, expected results, argumentation. 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 program and at describing her/his specific research interests;
- **Scientific Publications:** Articles and/or reviews in scientific journals with peer reviewing, scientific book chapters with national or international circulation;
- **Reference Letters:** a maximum 1 letter written by professors or researchers or experts in the research areas working in public or private research institutions;
- **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
- **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
Curriculum Vitae et studiorum	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. Voting examinations and graduation marks will be the most relevant element of the evaluation.	Up to 20 points
Graduation thesis	Consistency of the Master's Degree thesis with the doctoral program research topics (briefly describe the topics in the curriculum vitae)	Up to 4 points
Statement of Research Interest	Originality and research attitude	Up to 2 points
Scientific publications	International peer-reviewed papers: up to 2 points National peer-reviewed papers: up to 1 point Book chapters: up to 1 point	Up to 3 points
Reference Letters	Motivation and research attitude	Up to 1 point

The Research Project will be evaluated during the Oral Exam



ORAL EXAMINATION		EVALUATION CRITERIA	POINTS
The ORAL EXAM includes the presentation of the research project and is intended 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">○ English reading and speaking and for foreign candidates also Italian language: up to 10 points○ ability to argue on the interpretation of the scientific○ impact of the research described in the original proposal: up to 50 points○ expertise in the specific research field: up to 30 points	Up to 90 points
SCHEDULE OF THE ADMISSION EXAMS			
ORAL EXAM	DATE	16 September 2020 (with possible extension in the following days)	
	TIME	09:30 am (Italian time)	
	PLACE	remotely using the Microsoft Teams platform	
OTHER INFORMATION		For foreign candidates it is possible to carry out the admission examination exclusively in English, after checking the basic knowledge of ITALIAN LANGUAGE. For Italian candidates it will be possible to take the admission examination in Italian or in English at the candidate's choice.	



DRUG SCIENCES	
Cycle	XXXVI
Coordinator	Prof. Marco MOR Food and Drug Department email: marco.mor@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2020
Participation with positive results in international calls	PROGETTO UE H2020 – MSCA ITN "Innovation Training Networks" ITN-ETN "COLOTAN" project 956851 <ul style="list-style-type: none">• Boosting advanced doctoral training in innovative colon targeting drugs
Research Topics	
<ul style="list-style-type: none">• Biochemistry and Molecular Biology• Biopharmaceutics – Pharmacokinetics• Bio-organic chemistry• Experimental Pharmacology and Toxicology• Drug Design and Synthesis	
Training Objectives	
The PhD programme "Drugs Sciences" is aimed at the preparation of "Dottori di ricerca" having scientific bases and research experience in the design, discovery, development, production and control of drugs and health products, as well as in the investigation of mechanisms of action for drugs and bioactive compounds. The Course offers multi-disciplinary formation in different scientific areas, mainly chemical and biological with particular focus on medicinal chemistry, pharmaceutical technology, pharmacology and biochemistry. All the contributions converge toward the education and research training of PhD students who, at the end of the course, are expected to produce innovation and new knowledge in the field of drugs, biomolecules, health products and their interaction with biological substrates.	
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 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 31st 2020 .	
POSITIONS PUT OUT TO COMPETITION	
With Scholarship	8
Reserved to employees of companies having an "Industrial Doctorate" arrangement	2
TOTAL	10



Positions with University Scholarship		
N°	Funding entity	Research Topic
4	Scholarship Ministerial funds	<ul style="list-style-type: none"> • Biopharmaceutics - Pharmacokinetics • Experimental Pharmacology and Toxicology • Drug Design and Synthesis • Biochemistry and Molecular Biology
1	Scholarship co-funded by Fondazione Cariparma	– Biopharmaceutics - Pharmacokinetics
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
3	Funded by the Food and Drugs Department	<ul style="list-style-type: none"> • Application of NMR techniques to drug discovery and development • Design and synthesis of novel EphA2-receptor antagonists • Inhalatory route for the treatment of pulmonary infections
Position reserved for "Industrial Doctorate" (according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013)		
N°	Company/Institution	RESEARCH TOPIC
2	Reserved to employees of Chiesi Farmaceutici S.p.A.	<ul style="list-style-type: none"> • Oral Absorption: in vitro-silico-vivo approach to predict human PK using a rat model • Is it possible to develop a biopharmaceutical classification for inhaled drugs? In vitro, in vivo and in silico methods that could help in building such classification
ADMISSION PROCEDURES		
<p>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</p>		
Foreign Language	<p>Language the fluency of which shall be assessed during the Oral Exam: ENGLISH. The evaluation of the knowledge of this language will be oral and will consist in reading and translating of a scientific text.</p>	
<p align="center">APPLICANTS SHALL TAKE THE EXAM REMOTELY. For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.</p>		
<p>THE INTERVIEW MAY BE HELD ALSO IN ENGLISH</p>		



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 Call for Applications)
- Scanned Copy of a **valid identification document** with photo
- **Curriculum Vitae et studiorum** (art. 4 of the Call for Applications)
- **Abstract of the second cycle master's degree thesis.** Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)
- **Certificates and academic transcript of records for both Bachelor' and Master' degrees** containing the following details for each degree held: (art. 4 of the Call for Applications):
 - 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)

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, focused on an original research topic and it shall be structured as follows: introduction of the problem in the scientific context, significance of the problem, expected results, argumentation; 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;
- **Scientific Publications:** Articles and/or reviews in scientific journals with peer reviewing, abstracts of papers or posters presented at conventions or meetings.

EVALUATION CRITERIA

QUALIFICATION	EVALUTATION CRITERIA	POINTS
Curriculum Vitae et studiorum	Including academic career, 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, and postgraduate experiences, including any awards.	Up to 20 points
Graduation thesis or Draft of the thesis	Consistency of the Master's Degree thesis with the doctoral programme research topics (briefly describe the topics in the curriculum)	Up to 10 points
Research Project	Points relating to the research project shall be allocated on the basis of the following criteria: <ul style="list-style-type: none"> ○ Scientific value and ground-breaking nature of the proposal: 5 points ○ description and structure of the proposal: 5 points ○ consistency with the themes of the doctorate: doctorate proposal feasibility: 5 points 	Up to 15 points
Scientific publications	Articles and/or reviews in scientific journals with peer reviewing, abstracts of papers or posters presented at conventions or meetings	Up to 5 points



ORAL EXAMINATION		EVALUATION CRITERIA	POINTS
The ORAL EXAM includes the presentation of the research project and is intended 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: 10 points○ research project presentation: 30 points○ general knowledge of issues connected to the PhD course: 30 points	Up to 70 points
SCHEDULE OF THE ADMISSION EXAMS			
ORAL EXAM	DATE	16 September 2020 (with possible extension in the following days)	
	TIME	10:00 am (Italian time)	
	PLACE	remotely using the Microsoft Teams platform	
OTHER INFORMATION		For foreign candidates, the admission examinations may be held in English at the candidate's choice.	



EARTH SCIENCES		
Cycle	XXXVI	
Coordinator	Prof. Mario TRIBAUDINO Department of Chemistry, Life Sciences and Environmental Sustainability email: mario.tribaudino@unipr.it	
Duration	3 years	
Starting date of the PhD program	01/11/2020	
Research Topics		
<ul style="list-style-type: none">• Depositional architecture, hierarchical classification and development models of turbidite lobes in foredeep basins• Planktonic foraminiferal high-resolution quantitative biostratigraphy of upper Aquitanian-Burdigalian open ocean successions and implication for the definition of the Burdigalian GSSP.• Ocenic accretionary prism and continental collision with examples from Ionian Sea and Northern Apennines• Development of potential data loggers and implementation of numerical methods for the processing and analysis of passive electrical signals applied to soil defense and geologic hazard mitigation.• Analysis and modelling of hydro-geomorphological processes related to sediment management and solid• The role of geology and geochemistry in the geographical traceability of wine using B, H, O and Sr stable isotopes.		
Training Objectives		
The Ph.D. in Earth Sciences aims to introduce the student to high quality research in the different fields of Earth Sciences.		
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 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 31st 2020 .		
POSITIONS PUT OUT TO COMPETITION		
With Scholarship	5	
TOTAL	5	
Positions with University Scholarship		
N°	Funding entity	Research Topic, if any
3	Scholarship Ministerial funds	---
1	Scholarship co-funded by Fondazione Cariparma	---



Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Call for applications)

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.

N°	Funding entity	BOUND RESEARCH TOPIC
1	Funded by the Department of Chemistry, Life Sciences and Environmental Sustainability	– Depositional architecture, hierarchical classification and development models of turbidite lobes in foredeep basins

ADMISSION PROCEDURES

Assessment of QUALIFICATIONS: up to 40 points

(a minimum score of 15 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 evaluation of the knowledge of this language will be oral and will consist in translating of a paragraph of scientific text
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APPLICANTS SHALL TAKE THE EXAM REMOTELY.

For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.

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 Call for Applications)
- Scanned Copy of a **valid identification document** with photo
- **Curriculum Vitae et studiorum** (art. 4 of the Call for Applications)
- **Abstract of the second cycle master's degree thesis.** Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)
- **Certificates and academic transcript of records for both Bachelor' and Master' degrees** containing the following details for each degree held: (art. 4 of the Call for Applications):
 - 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)

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 programme and at describing the specific her/his research interests, assessed in the curriculum vitae;
- **Scientific Publications:** Articles on national and international journals, papers presented at conferences or symposia, book chapters etc.
- **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:** 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
- **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
Curriculum Vitae et studiorum	Including academic career and postgraduate experience, Master's and/or specialization degree, mobility experience abroad	Up to 10 points
Graduation mark	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	Up to 5 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2020)	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 - from 25 to 25.99: 1 point - under 25: 0,5 points	Up to 5 points
Graduation thesis	Scientific quality of work performed and consistency of the Master's Degree thesis with the doctoral program research topics	Up to 10 points
Research Project	Points relating to the research project shall be allocated on the basis of the following criteria: <ul style="list-style-type: none"> ○ 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 	Up to 10 points
Scientific publications	<ul style="list-style-type: none"> – Abstract presented at a national or international congress: 1 point – Articles on scientific journals (ISI): 3 points – Other publication (related to the topics of PhD program): 1 point 	Up to 3 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 facilities	Up to 2 points
ORAL EXAMINATION	EVALUATION CRITERIA	POINTS
The ORAL EXAM includes the presentation of the research project and is intended 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: 25 points	Up to 80 points
SCHEDULE OF THE ADMISSION EXAMS		
ORAL EXAM	DATE	16 September 2020 (with possible extension in the following days)
	TIME	09:00 am (Italian time)
	PLACE	remotely using the Microsoft Teams platform
OTHER INFORMATION	For foreign candidates, the admission examinations may be held in English at the candidate's choice.	



PHILOLOGICAL-LITERARY, HISTORICAL-PHILOSOPHICAL AND ARTISTIC STUDIES

Cycle	XXXVI
Coordinator	Prof. Italo TESTA Department of Humanities, Social Sciences and Cultural Industries email: italo.testa@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2020
Partner Institution for University Cooperation Agreements	<ul style="list-style-type: none">• Istanbul Technical University (Turchia)
Research Topics	
<ul style="list-style-type: none">• Greek and Latin Philology• Philosophy• Italian Studies and Romance Philology• Foreign Languages and Literatures• History• History of Art and Spectacle	
Training Objectives	
<p>The doctoral course aims to provide both a sound cultural formation and the methodological skills that are necessary for carrying out research in a specific thematic area. Doctoral students will develop skills to pursue an original research project and to elaborate a highly qualified critical study in the form of a final doctoral dissertation.</p> <p>The thematic area of Greek and Latin Philology aims to deepen the linguistic, literary and philological skills of the doctoral students and particularly to train them in academic research towards the development of a scientific study, particularly in the form of a critical edition, commentary or essay concerning the texts of ancient literatures (Greek and Latin).</p> <p>The thematic area of Philosophy aims to deepen both logical and critical skills of the doctoral students and their knowledge of the history of philosophy. Doctoral students will be qualified to carry out research projects requiring conceptual analysis, historical and philological competence, and ability in developing argumentations in the fields of theoretical philosophy, philosophy of language, aesthetics, and in the fields of the history of medieval, modern and contemporary philosophy.</p> <p>The thematic area of Italian Studies and Romance Philology aims to develop researchers who are competent in linguistics and philology, as well as in the theory of literature. They will be able to edit critical and commented editions of the texts of Romance and Italian literature, and to carry out innovative historical-literary and thematic analyses in various chronological areas.</p> <p>The thematic area of Foreign Languages and Literatures focuses on the study of European foreign languages and literatures (English, French, German, Spanish, Russian) and, where appropriate, of their postcolonial developments. Its aim is to promote original and innovative research projects based on the most recent theoretical and methodological approaches in the disciplines of linguistics (translation, discourse analysis, the study of corpora, lexicography) and the historical and critical analysis of literature and culture from the early modern age to the contemporary period.</p>	



The thematic area of **History** aims at training brilliant and young Phd-students in the field of Historical Sciences, providing them with appropriate methodological skills and critical insights into the various branches of historical research. Doctoral students will be tutored in order to develop original and innovative research projects from Classical Antiquity to Contemporary Age and to face with fresh approaches different kinds of documents and theoretical problems dealing with politics, religious studies, history of ideas, social and economic analysis.

In the thematic area of the **History of Art and History of Spectacle** doctoral students are required to develop critical tools to be able to deal with research in the history of medieval art, or modern art or contemporary art, art critic and museology, but also in the fields of theatre history and the history of cinema. Doctoral candidates will acquire skills in reconstructing critical debates, reading different available sources and especially applying the tools for a philological reading of the image.

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 31st 2020**.

POSITIONS PUT OUT TO COMPETITION

With Scholarship	6
TOTAL	6

Positions with University Scholarship

N°	Funding entity	Research Topic, if any
4	Scholarship Ministerial funds	---
1	Scholarship University funds	---
1	Scholarship co-funded by Fondazione Cariparma	---

ADMISSION PROCEDURES

Assessment of QUALIFICATIONS: up to 80 points
(a minimum score of 30 points shall be required to be admitted to the Oral Exam)

ORAL EXAM: up to 40 points

Minimum score for ELIGIBILITY: 70/120

Foreign Language	Language the fluency of which shall be assessed during the Oral Exam: FRENCH, ENGLISH, GERMAN, SPANISH (at the candidate's choice). The evaluation of the knowledge of this language will be oral and will consist in reading and translating of a short passage.
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APPLICANTS SHALL TAKE THE EXAM REMOTELY.

For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.

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 Call for Applications)
- Scanned Copy of a **valid identification document** with photo
- **Curriculum Vitae et studiorum** (art. 4 of the Call for Applications)
- **PDF of the Abstract** (10.000 characters including spaces) **and PDF of the second cycle master's degree thesis**
Undergraduate applicants shall submit the abstract and the draft of the thesis approved by their supervisor through a short statement attached to the draft
- **Certificates and academic transcript of records for both Bachelor' and Master' degrees** containing the following details for each degree held: (art. 4 of the Call for Applications):
 - 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 10 pages (2000 characters each page including spaces) including reference bibliography, written in Italian or in English. The project shall be focused on an original research topic (**unpublished, developed personally by the candidate. It should be noted that the Examination Board can use of IT 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, argumentation. The project 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)

- **Scientific Publications:** Monographs, articles in scientific journals, chapters of books, convention proceedings;
- **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;
- **Experience abroad** for study activities (e.g. Erasmus or similar) and post-graduate research activities;
- **Any other document** certifying the applicant's training and abilities (post lauream scholarship, awards, etc.).

EVALUATION CRITERIA

QUALIFICATION	EVALUTATION CRITERIA	POINTS
Graduation mark	Score related to the final mark: - 110 with honours (magna cum laude)	1 point
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2020)	Score related to the average of the exam marks: - 30/30	1 point
Graduation thesis	Consistency of the Master's Degree thesis with the doctoral programme research topics, methodological rigor, knowledge of critical literature	Up to 25 points
Research project	Points relating to the research project (originality, articulation, feasibility of the proposal)	Up to 25 points



Scientific publications	Monographs, articles in scientific journals, chapters of books, conference proceedings	Up to 15 points
Other qualifications	Post lauream scholarship, experience abroad, award, etc.	Up to 14 points
ORAL EXAMINATION	EVALUATION CRITERIA	POINTS
The ORAL EXAM includes the presentation of the research project and is intended 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 and methodology necessary for the realization of the project: max 35 points○ knowledge of chosen foreign language: max 5 points	Up to 40 points
SCHEDULE OF THE ADMISSION EXAMS		
ORAL EXAM	DATE	17 September 2020
	TIME	09:30 am (Italian time)
	PLACE	remotely using the Microsoft Teams platform
OTHER INFORMATION	For foreign candidates, the admission examinations may be held in English.	



TRASLATIONAL MEDICAL AND SURGICAL SCIENCES

Cycle	XXXVI
Coordinator	Prof. Carlo FERRARI Department of Medicine and Surgery email: carlo.ferrari@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2020

Research Topics

- 1) Stem cells in diagnosis and treatment of neoplasia, chronic and degenerative disorders, cardiovascular diseases and bone, joint and muscle diseases;
- 2) Translational medicine and immunologic dysregulation of respiratory, digestive, skin, infectious, endocrine, and kidney diseases and of vasculitis;
- 3) Plasticity, function and diagnostic-therapeutic use of genomic, transcriptomic, proteomic and metabolomic platforms of cells, organs and tissues to prevent or treat neoplasia, infections, chronic and degenerative diseases, metabolic dysfunctions, obstetric-neonatal diseases as well as in response to environmental factors, lifestyles and pharmaceuticals;
- 4) Development and “theranostic” function of technologically advanced imaging and phenotyping platforms to prevent or treat neoplasia, infections, chronic and degenerative diseases, metabolic dysfunctions, obstetric-neonatal illnesses as well as in response to environmental factors, lifestyles and pharmaceuticals;
- 5) Development and application of technologically advanced devices and/or biological tools, to measure and support and/or to replace the function of cells, tissues or organs in medical and/or surgical diseases;
- 6) Advanced and innovative strategies for recovery and functional rehabilitation to prevent or treat neoplasia, infections, chronic and degenerative diseases, metabolic dysfunctions, obstetric-neonatal illnesses as well as in response to environmental factors, lifestyles and pharmaceuticals;
- 7) Roles of governance and organization of healthcare systems and services in the prevention and care of socially and economically highly relevant disorders, including, but not limited to, environmental and professional diseases;
- 8) Role of microbiota and microbiome in translational medicine and surgery;
- 9) Retrieval and role of “big data” in translational medicine and surgery;
- 10) Role of advanced technologies, including robotics, in translational surgery.

Training Objectives

The PhD Program in Translational Medical and Surgical Sciences is a typical multidisciplinary PhD program, in which the common denominator among most diverse research pathways is the critical transition from bench to bedside, i.e. clinical application in real patients. This close link between bench research and clinical research will expedite the transfer of experimental discoveries and methods to clinical practice. The close contact with clinical activity will allow the PhD students to face also real problems in the clinical arena, ranging from diagnosis to treatment and from prevention to rehabilitation, all of which are deeply involved in human disease and in patient care. The fast, two-way exchange between clinics and lab will bring back to the lab the results of clinical and epidemiological observations, closely linking experimental research to questions and goals stemming directly from real world data and unmet needs of the patient. The final goal of the PhD Program in Translational Medical and Surgical Sciences, therefore, is to provide a highly qualifying PhD educational pathway, offering the students top notch opportunities, know-how and technological tools and enabling them to carry out cutting edge translational research in national or foreign, public or private Institutions, including, but not limited to, Universities, Research Centers and PharmaMed Industries.



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 31st 2020**.

POSITIONS PUT OUT TO COMPETITION

With Scholarship	4
Without Scholarship	1
Reserved to holders of Research Grant	1
TOTAL	6

Positions with University Scholarship

N°	Funding entity	Research Topic, if any
2	Scholarship Ministerial funds	---
1	Scholarship University funds	---
1	Scholarship co-funded by Fondazione Cariparma	---

Position reserved to holders of Research Grant

N°	Subject area of the research
1	The psycho-socio-spiritual dimension of care in health emergencies in high and low income countries

Position reserved to holders of scholarship funded by foreign States

ADMISSION PROCEDURES

Assessment of QUALIFICATIONS: up to 40 points

ORAL EXAM: up to 80 points

Minimum score for ELIGIBILITY: 70/120

Foreign Language	Language fluency which shall be assessed during the Oral Exam: ENGLISH . The evaluation of the knowledge of this language will be oral and will consist in reading and translating of a scientific text.
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APPLICANTS SHALL TAKE THE EXAM REMOTELY.

For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.

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 Call for Applications)
- Scanned Copy of a **valid identification document** with photo
- **Curriculum Vitae et studiorum** (art. 4 of the Call for Applications)
- **Abstract of the second cycle master's degree thesis.** Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)
- **Certificates and academic transcript of records for both Bachelor' and Master' degrees** containing the following details for each degree held: (art. 4 of the Call for Applications):
 - 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)

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, focused on an original research topic (**unpublished, developed personally by the candidate. It should be noted that the Examination Board can use of IT 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, argumentation;
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 program and at describing her/his specific research interests;
 - **Scientific Publications:** Articles on national and international journals, papers presented at conferences or symposia, book chapters etc.
 - **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:** 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;
 - **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
Curriculum Vitae et studiorum	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	Up to 7 points



Graduation mark	Score related to the final mark: - 110 with honours (magna cum laude): 5 points - 110: 3 points - From 106 to 109: 2 points - From 102 to 105: 1 point	Up to 5 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2020)	Score related to the average of the exam marks: - 30/30: 5 points - From 28/30 to 29/30: 3 points - From 26/30 to 28/30: 2 points - From 24/30 to 25/30: 1 point	Up to 5 points
Graduation thesis	Consistency of the Master's Degree thesis with the doctoral program research topics (briefly describe the topics in the curriculum vitae)	Up to 2 points
Research Project	Points relating to the research project shall be allocated on the basis of the following criteria: ○ Scientific value and originality of the proposal: max 7 points ○ description and structure of the proposal: max 2 points ○ proposal feasibility: 1 point	Up to 10 points
Statement of Research Interest		Up to 1 point
Scientific publications	Articles on national and international journals, papers presented at conferences or symposia, book chapters etc	Up to 7 points
Reference Letters	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	Up to 3 points
Other qualifications	Grants, mobility experience abroad, awards, internships, etc	Up to 5 points
ORAL EXAMINATION	EVALUATION CRITERIA	POINTS
The ORAL EXAM includes the presentation of the research project and is intended 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"> ○ good argument about the project: up to 30 points ○ Discussion of the critical points of the project: up to 18 points ○ Framing of the project in the field of knowledge of the sector: up to 15 points ○ Ability to mitigate risks deriving from unexpected results: up to 10 points ○ knowledge of the foreign language: up to 7 points 	Up to 80 points



SCHEDULE OF THE ADMISSION EXAMS

ORAL EXAM	DATE	17 September 2020 (with possible extension to 18 September 2020)
	TIME	09:00 am (Italian time)
	PLACE	remotely using the Microsoft Teams platform
OTHER INFORMATION	For foreign candidates it is possible to carry out the admission examination exclusively in English. For Italian candidates it will be possible to take the admission examination in Italian or in English at the candidate's choice.	



VETERINARY SCIENCES		
Cycle	XXXVI	
Coordinator	Prof. Gaetano DONOFRIO Department of Veterinary Science email: gaetano.donofrio@unipr.it	
Duration	3 years	
Starting date of the PhD program	01/11/2020	
Research Topics		
<ul style="list-style-type: none">• Pathological Sciences• Clinical Sciences• Basic Sciences• Animal Production Sciences and Technologies• Food inspection and Public Health		
Training Objectives		
Veterinary Science Doctoral course aims at training PhD-students about research topics on basic, pre-clinical, clinical and non-clinical areas (animal production and food inspection) by novel methodology and technology. PhD student chooses to develop his/her own research project under the supervision of a Tutor and to produce scientific outcomes in the following area: VET, AGR and BIO.		
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-42 Veterinary Medicine– "Laurea Magistrale" LM-9 Medical Biotechnology, Veterinary and Pharmaceutica– "Laurea Magistrale" LM-86 Zootechnical Sciences and Animal Technologies 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 Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2020 .		
POSITIONS PUT OUT TO COMPETITION		
With Scholarship		6
	TOTAL	6
Positions with University Scholarship		
N°	Funding entity	Research Topic, if any
2	Scholarship Ministerial funds	---
1	Scholarship University funds	---
1	Scholarship co-funded by Fondazione Cariparma " Carlo Gabbi "	---



Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Call for applications)

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.

N°	Funding entity	BOUND RESEARCH TOPIC
1	Funded by the Department of Veterinary Science	– Changes in lymphocytic populations in bitches undergoing elective ovariohysterectomy and with endometrical cystic hyperplasia
1	Funded by Clinica Veterinaria Modena Sud STP S.r.l.	– Isolation and culture of stem cells from reptiles, with particular reference to the reproductive system

ADMISSION PROCEDURES

Assessment of QUALIFICATIONS: up to 40

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 evaluation of the knowledge of this language will be oral and will consist in translation and comprehension of a scientific text.
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**CANDIDATES ADMITTED TO THE ORAL TEST CAN TAKE THE EXAM
REMOTE IN AUDIO AND VIDEO TELECONFERENCE
OR IN PRESENCE**

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 Call for Applications)
- Scanned Copy of a **valid identification document** with photo
- **Curriculum Vitae et studiorum** (art. 4 of the Call for Applications)
- **Abstract of the second cycle master's degree thesis**. Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)
- **Certificates and academic transcript of records for both Bachelor' and Master' degrees** containing the following details for each degree held: (art. 4 of the Call for Applications):
 - 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)



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, expected results, argumentation; 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 2 pages – in Italian or in English, aimed at explaining the candidate's reasons to attend the PhD program and at describing the specific her/his research interests;
- **Scientific Publications:** Articles published in journals indexed in databases Wos and Scopus;
- **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
- **Any other document** certifying the applicant's training and abilities (grants, awards, trainings etc.)

EVALUATION CRITERIA

QUALIFICATION	EVALUTATION CRITERIA	POINTS
Curriculum Vitae et studiorum	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	Up to 2 points
Graduation mark	Score related to the final mark: - 110 with honours (magna cum laude): 3 points; - 110: 2 points; - From 100 to 109: 0,1 points for each mark unit	Up to 3 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2020)	Score related to the average of the exam marks: - 30/30: 3 points; - From 26/30 to 29/30: 2 points; - From 22/30 to 25/30: 1 point; - From 18/30 to 21/30: 0,5 points	Up to 3 points
Graduation thesis	Abstract of the second cycle master's degree thesis	Up to 5 points
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, expected results, argumentation	Up to 10 points
Statement of Research Interest	Short text – maximum 2 pages – in Italian or in English, aimed at explaining the candidate's reasons to attend the PhD and at describing the specific research interests	Up to 5 points



Scientific publications	Articles published in journals indexed in databases Wos and Scopus	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 facilities	Up to 5 points
Other qualifications	Awarding of Scholarships, prizes, trainings, etc.	Up to 5 points
ORAL EXAMINATION	EVALUATION CRITERIA	POINTS
The ORAL EXAM will consist of an interview on scientific or aptitude also based on topics of previously published research if any		Up to 80 points
SCHEDULE OF THE ADMISSION EXAMS		
ORAL EXAM	DATE	18 September 2020
	TIME	10:00 am (Italian time)
	PLACE	ROOM "C" Department of Veterinary Sciences Via del Taglio, 10 – 43124 PARMA - ITALY
OTHER INFORMATION	For foreign candidates, the admission examinations may be held in English at the candidate's choice.	



INFORMATION TECHNOLOGIES	
Cycle	XXXVI
Coordinator	Prof. Marco LOCATELLI Department of Engineering and Architecture email: marco.locatelli@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2020
Participation with positive results in international calls	<p>PROGETTO UE H2020 – MSCA ITN "Innovation Training Networks" ITN-ETN "PHAST" project 860185</p> <ul style="list-style-type: none"> • Integrated liquid biopsy for cancer diagnostics via genomic markers detection"
Research Topics	
<ul style="list-style-type: none"> • Electronics instrumentation and electrical drives • Computer systems and automatic control • Telecommunications and electromagnetic fields 	
Training Objectives	
The course aims at educating the future Ph.D.'s so that they will enter the research world with an active role, within both universities and industries.	
Admission requirements	
<p>Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission:</p> <ul style="list-style-type: none"> - 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 <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2020.</p>	
POSITIONS PUT OUT TO COMPETITION	
With Scholarship	10
Without Scholarship	1
Reserved to holders of Research Grant	1
Reserved to employees of companies having an "Industrial Doctorate" arrangement	2
TOTAL	14
Positions with University Scholarship	



N°	Funding entity	Research Topic, if any
3	Scholarship Ministerial funds	---
1	Scholarship University funds	---
1	Scholarship co-funded by Fondazione Cariparma	---
Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Call for applications)		
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.		
N°	Funding entity	BOUND RESEARCH TOPIC
1	Funded by the Department of Engineering and Architecture	– Computer Vision applications for Autonomous Driving
1	Funded by the Department of Engineering and Architecture	– Motion planning and coordination of autonomous vehicles in industrial environments
1	Funded by the Department of Engineering and Architecture	– Innovative Drone-based Communication and Navigation Systems
1	Funded by the Department of Engineering and Architecture	– Design and implementation of 5G V2X
1	Funded by the Department of Engineering and Architecture	– Active control of in-vehicle acoustic regions
Position reserved to holders of Research Grant		
N°	Subject area of the research	
1	Computer Technologies for Precision Agriculture	
Position reserved for "Industrial Doctorate" (according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013)		
N°	Company/Institution	
1	Reserved to employees of cFederal-Mogul Powertrain Italy S.p.A.	
1	Reserved to employees of Sidel S.p.A.	
ADMISSION PROCEDURES		
Assessment of QUALIFICATIONS: up to 70 points (a minimum score of 30 points shall be required to be admitted to the Oral Exam)		
ORAL EXAM: up to 50 points		
Minimum score for ELIGIBILITY: 70/120		
Foreign Language	Language the fluency of which shall be assessed during the Oral Exam: ENGLISH . The evaluation of the knowledge of this language will be oral and will consist of a brief interview on a technical topic (for example a translation of a scientific text).	
APPLICANTS SHALL TAKE THE EXAM REMOTELY.		
For further details please refer to the relevant provision laid down in art. 7 of the Call for applications.		
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 Call for Applications)
- Scanned Copy of a **valid identification document** with photo
- **Curriculum Vitae et studiorum** (art. 4 of the Call for Applications)
- **Abstract of the second cycle master's degree thesis.** Undergraduate applicants may submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)
- **Certificates and academic transcript of records for both Bachelor' and Master' degrees** containing the following details for each degree held: (art. 4 of the Call for Applications):
 - 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)

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, expected results, argumentation;
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;
- **Scientific Publications:** Articles on national and international journals, papers presented at conferences or symposia, book chapters etc.;
- **Reference Letters:** Maximum 2 letters and must be sent directly by the signer to the address e-mail: marco.locatelli@unipr.it (The candidate, therefore, must not uploading them through the procedure of the competition online registration);
- **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 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
Curriculum Vitae et studiorum	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 (mandatory qualification) It will also be evaluated the congruence of the degree obtained with the PhD themes.	Up to 25 points
Graduation thesis	Abstract of the master's degree thesis (even if not yet discussed as long as countersigned by the supervisor). (mandatory qualification). It will also be evaluated the consistency of the Master's Degree thesis with the doctoral programme research topics.	Up to 5 points



Research Project	<p>Max 3 pages, either in Italian or English. It must present an original research topic and be structured as follows: introduction of the problem within the scientific framework, relevance of the topic, expected results, motivations.</p> <p>The candidates are strongly invited to browse the research topics of the Ph.D. programme at the web site https://dia.unipr.it/it/node/2833 in order to prepare a research project compatible with them.</p> <p><i>It does not represent a constraint with respect to the following choice of the doctoral thesis</i></p>	Up to 30 points
Scientific publications	Articles on national and international journals, papers presented at conferences or symposia, book chapters etc.	Up to 5 points
Reference Letters	<p>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.</p> <p>They must be sent directly by the signer to the address e-mail: marco.locatelli@unipr.it</p>	Up to 2 points
Other qualifications	Grants, test GRE, awards, apprenticeships etc	Up to 3 points
ORAL EXAMINATION	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: max 5 points ○ research project presentation: max 25 points ○ general knowledge of issues connected to the PhD course: max 20 points 	Up to 50 points
SCHEDULE OF THE ADMISSION EXAMS		
ORAL EXAM	DATE	17 September 2020 (with possible extension in the following days)
	TIME	09:00 am (Italian time)
	PLACE	remotely using the Microsoft Teams platform
OTHER INFORMATION	<p>For foreign candidates, the admission examinations may be held in English at the candidate's choice.</p> <p>For foreign candidates all documents written in a language other than Italian will have to be translated into English, otherwise they will not be evaluated</p>	