



EVOLUTIONARY BIOLOGY AND ECOLOGY	
Cycle	XXXV
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	01/11/2019
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• 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, animal behavior, and the relationships of all living organisms, including humans, among them and with the environment. By integrating information ranging from the molecular level to organisms, populations and communities, 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 biostatistical and simulation methods. Therefore, the holder of a Ph.D. in Evolutionary Biology and Ecology will be highly qualified 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 programs <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2019.</p>	
POSITIONS PUT OUT TO COMPETITION	
With Scholarship	12
Without Scholarship	3
TOTAL	15



Positions with University Scholarship		
N°	Funding entity	Research Topic
3	Scholarship University funded by University of Parma	For information on the topics in the competition, please refer to the PhD web page https://scvsa.unipr.it/it/node/2948
3	Scholarship funded by University of Ferrara	
3	Scholarship funded by University of Firenze	
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 skills, experience and aptitude of the applicants.		
N°	Funding entity	BOUND RESEARCH TOPIC
1	Funded by University of Parma - Department of Chemistry, Life Sciences and Environmental Sustainability (excellence department project)	<ul style="list-style-type: none"> Merging spectral and eco-physiological diversity to assess macrophyte traits and functions along multiple gradients
1	Funded by University of Firenze – Department of Biology (Project PRIN2017CTH94H)	<ul style="list-style-type: none"> Merging spectral and phylogenetic diversity to assess macrophyte traits and functions along multiple gradients (macroDIVERSITY)
1	Funded by University of Firenze – Department of Biology (Project PRIN20174BTC4R)	<ul style="list-style-type: none"> Reconstructing past human population history through a paleogenomic approach
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.	
Possibility of videoconference for candidates residing or temporarily abroad (the request shall be submitted using the form attached to the call for applications)		YES
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)
- **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. 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 on national and international journals with peer reviewing, papers presented at conferences or symposia, book chapters, abstracts of papers or posters presented at congress or meetings;
- **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

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)

- **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 (scholarship, grants, university career awards, 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 2019)	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	Relevance 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. The score will be normalized for the duration of the post-graduate scientific career.	Up to 5 points
Reference Letters	Relevance with the doctorate and prestige of the institution or the signer of the letter. Letter signed by members of the examination committee shall not be accepted	Up to 5 points
Further qualifications	Academic qualifications, mobility experience abroad and any other document will be collectively evaluated along with the CV and will contribute to the CV score	
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 ○ presentation and discussion of the project ○ general knowledge of issues relatedconnected to the PhD course 	Up to 60 points
SCHEDULE OF THE ADMISSION EXAMS		
ORAL EXAM	DATE	16 September 2019
	TIME	10:00 am
	PLACE	Department of Chemistry, Life Sciences and Environmental Sustainability Padiglione 14 (Podere Ambolana) – ROOM AB Parco Area delle Scienze, 33/A – 43124 PARMA - ITALY
OTHER INFORMATION	For foreign candidates, the examination may be held in English at the candidate's choice.	



BIOTECHNOLOGY AND LIFE SCIENCES	
Cycle	XXXV
Coordinator	Prof. Simone OTTONELLO Department of Chemistry, Life Sciences and Environmental Sustainability email: simone.ottonello@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2019
Research Topics (The candidate MUST mandatorily indicate one research topic in the ANNEX A)	
<ul style="list-style-type: none">• Environmental• Genetic• Biomolecular	
Training Objectives	
<p>The PhD in Biotechnology and Life Sciences aims to train experts capable of performing (and be in charge of) advanced research activity in multiple and diverse fields of biology and biotechnology. The main focus will be on the study of the function, organization, and expression of microbial, plant and animal genomes (including the human genome) from a basic science but also a translational point of view, in order to gain insights on possible biotechnological and biomedical applications. The experimental methodology will be centred on the investigational tools of genetics, molecular biology, biochemistry and applied biology. Starting from these shared objectives, in order to train PhDs with highly qualifying skills in specific fields of Biotechnology and Life Sciences, three main research areas have been identified: 1) environmental; 2) genetic; 3) biomolecular. PhD students will be involved, on a full-time basis, in a research project, to which they will contribute in a highly critical and constructive/transformational manner. This will allow them to achieve scientific and management independence, also taking advantage of the national and international scientific 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 programs <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2019.</p>	
POSITIONS PUT OUT TO COMPETITION	
With Scholarship	5
Covered by High Internship and Research Agreements	1
TOTAL	6



Positions with University Scholarship		
N°	Funding entity	Research Topic
2	Scholarship Ministerial funds	<ul style="list-style-type: none">• Environmental• Genetic
1	Scholarship University funds	<ul style="list-style-type: none">• Biomolecular
1	Scholarship co-funded by Fondazione Cariparma	<ul style="list-style-type: none">• Environmental
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	Scholarship Ministerial funds	<ul style="list-style-type: none">• <u>Biomolecular</u>: "Functional and Structural characterization of toxin/antitoxin bacterial systems" <p><i>Project in collaboration with the University of Aarhus (Denmark) that will require a research stage of at least 3 months at the above foreign University</i></p>
Positions covered by High Internship and Research Agreements		
N°	Company/Institution	BOUND RESEARCH TOPIC
1	GenProbio S.r.l.	<ul style="list-style-type: none">• <u>Genetic</u>: "Microbiota and health: development of novel approaches to unveil the composition and functionality of microbial communities"
ADMISSION PROCEDURES		
Assessment of QUALIFICATIONS: up to 40 points (a minimum score of 16 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 of questions on the scientific article selected and discussed by each candidate and/or on reading and translation of a scientific text.	
Possibility of videoconference for candidates residing or temporarily abroad (the relevant request shall be submitted using the form attached to the competitive examination announcement)		YES
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 programme
 - Date of graduation
 - Final mark
 - List of exams and corresponding scores (academic transcript of records)
 - Translation into Italian or English (only for degrees issued in languages other than Italian or English)
- **Statement of Research Interest:** Short text – maximum n. 3.000 characters, including spaces – 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. **The research area selected by the candidate as well as her/his interests for one of the 'bound research topic', if applicable, must also be indicated**

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/communications at conferences or symposia:** attach a list of articles published in *peer-reviewed* international scientific journals, articles published in indexed national journals; book chapters, 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 degrees in subjects related to the research topics of this PhD program;
- **Mobility experience abroad** (e.g. Erasmus or similar appropriately documented experiences);
- **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' and/or specialization degrees in subjects related to the research topics of this PhD program; study or research periods abroad, grants, award and other academic qualifications), 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: <ul style="list-style-type: none">- 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 2019)	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 work with the doctoral programme research topics, as deduced from the Abstract/Summary of the thesis.	Up to 4 points
Statement of Research Interest	Short text – maximum n. 3.000 characters, including spaces – in Italian or in English, aimed at explaining the candidate's reasons/motivation for applying to this PhD programme. The candidate's interest for one of the 'bound research topics' if applicable, must also be specified.	Up to 2 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 meant to assess the suitability of the applicant to pursue scientific research as well as his/her general knowledge of scientific topic related 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	18 September 2019
	TIME	09:00 am
	PLACE	ROOM A – Podere "La Grande" Parco Area delle Scienze, 173/A – 43124 PARMA - ITALY
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, Genetic, 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	XXXV
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	01/11/2019
Research Topics	
<ul style="list-style-type: none">• Inference, network reconstruction and prediction of dynamic and static patterns for Smart Cities (POSITION LINKED TO A SPECIFIC TOPIC within the financing the Emilia Romagna Region)• Quantum simulations of magnetic systems by prototype quantum computers (INDUSTRIAL DOCTORATE)• Research in Theoretical Physics in the framework of INFN activities (POSITION LINKED TO A SPECIFIC TOPIC)• Carbon-based nanostructured materials for energy storage• Photofunctional nanostructures for antimicrobial photodynamic therapy• Control of evolution and decoherence in open quantum systems• Numerical Study of the Gravitational wave emission produced by the merger of Binary Neutron Stars• Dynamics of molecular nanomagnets investigated by neutron and muon spectroscopies, NMR and out-of-equilibrium magnetometry	
A detailed description of the themes is available at the address: http://smfi.unipr.it/it along with the contact person for each of the proposed themes.	
Training Objectives	
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.	
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 programs Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2019.	



POSITIONS PUT OUT TO COMPETITION		
With Scholarship		6
Reserved to employees of companies having an "Industrial Doctorate" arrangement		1
TOTAL		7
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)		
<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 EMILIA ROMAGNA REGION  <i>The assignment of this scholarship is subject to the declaration of residence or domicile of the beneficiary in Emilia-Romagna</i>	<ul style="list-style-type: none"> Real time - big data sensing and temporal networks: network reconstruction and prediction of mobility and interaction patterns in social environments
1	Funded by INFN – The Italian National Institute for Nuclear Physics	<ul style="list-style-type: none"> Research in Theoretical Physics in the framework of INFN activities
Position reserved according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013 (Industrial Doctorate)		
N°	Company/Institution	RESEARCH TOPIC
1	Reserved to employees of IBM Italia S.p.A.	<ul style="list-style-type: none"> Quantum simulations of magnetic systems by prototype quantum computers
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 .	
Possibility of videoconference for candidates residing or temporarily abroad (the relevant request shall be submitted using the form attached to the competitive examination announcement)		YES
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 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):
 - 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 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 evaluate	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 foreign languages 	Up to 70 points
SCHEDULE OF THE ADMISSION EXAMS		
ORAL EXAM	DATE	18 September 2019
	TIME	starting from 10:00 am in accordance with the schedule to be published on the website of the Department of Mathematical, Physical and Computer Sciences http://smfi.unipr.it/it
	PLACE	Department of Mathematical, Physical and Computer Sciences Physics Building Parco Area delle Scienze, 7/A – 43124 PARMA - ITALY
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. 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	XXXV	
Coordinator	Prof. Andrea CARPINTERI Department of Engineering and Architecture email: andrea.carpinteri@unipr.it	
Duration	3 years	
Starting date of the PhD program	01/11/2019	
Partner Institution for University Cooperation Agreements	<ul style="list-style-type: none">• New Jersey Institute of Technology (USA)	
Research Topics		
<ul style="list-style-type: none">• Infrastructure and Environmental Engineering• Structural and Geotechnical Engineering• Architecture and Urban Planning• Smart City 4.0 – Architectural design and public space planning (Bound Research Topic)		
Training Objectives		
To develop specialized skills in the following fields: <ol style="list-style-type: none">(1) 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;(2) Structural and Geotechnical Engineering: mechanical behaviour of materials, structural components and structures; behaviour of soils and geotechnical structures;(3) 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		
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 programs Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2019 .		
POSITIONS PUT OUT TO COMPETITION		
With Scholarship		7
Without Scholarship		2
	TOTAL	9



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	---
Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Call for applications)		
In their application, applicants may express their interest 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 EMILIA ROMAGNA REGION  <i>The assignment of this scholarship is subject to the declaration of residence or domicile of the beneficiary in Emilia-Romagna</i>	<ul style="list-style-type: none"> Urban Strategic Project - regional coordination Smart City 4.0
ADMISSION PROCEDURES		
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		
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 traslating of a scientific text.	
Possibility of videoconference for candidates residing or temporarily abroad (the relevant request shall be submitted using the form attached to the competitive examination announcement)		YES
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) attaching possible request for the Oral Exam in English – 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 programme
 - Date of graduation
 - Final mark
 - List of exams and corresponding scores (academic transcript of records)
 - Translation into Italian or English (only for degrees issued in languages other than Italian or English)

Further qualifications that may be attached to the application, if in possession of the applicant
(only qualifications attested by a document drawn up in Italian or in English)

- **Research Project:** The research project shall consist of a maximum of 3 pages, be written in Italian or in English, 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 Academic Board Members for the research topic specified in the application form: <https://dia.unipr.it/it/node/2825> and <https://dia.unipr.it/en/node/3078>
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.

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	Abstract of the second cycle master's degree thesis or the draft of the thesis approved by supervisor must be mandatorily attached to the on-line application	Up to 10 points
Research Project	Points relating to the research project on the subject of research specified by the candidate in the online application form	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 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 ○ research project presentation ○ general knowledge of issues connected to the PhD course 	Up to 50 points



SCHEDULE OF THE ADMISSION EXAMS

ORAL EXAM	DATE	18 September 2019
	TIME	09:30 am
	PLACE	Department of Engineering and Architecture Parco Area delle Scienze, 181/A - 43124 PARMA - ITALY
OTHER INFORMATIONS	<p>For foreign candidates, the admission examinations may be held in English at the candidate's choice.</p> <p>In the application for participation in the competitive examination, the Applicant must choose and specify only ONE Research Topic (between the 4 possible topics), and the Applicant must take the oral exam on the chosen Research Topic. In the case of admission to the Doctorate program, the above choice will be binding with regard to the winner's research activity.</p> <p>The Oral Exam must be taken in Italian or in English. If the candidate wishes to take the oral exam in English he must attach a formal request to the application form (Form ANNEX A).</p> <p>For the Applicants who will take <u>the Oral Exam in Italian</u>, the knowledge of English language will be evaluated orally, and the test will consist in reading and translating a scientific text.</p> <p>The Applicants who will take <u>the Oral Exam in English</u> (in presence or in videoconference using the platform of Skype for the connection via web), if they will be in the list of winners of the present competitive examination, will have to mandatorily learn Italian during the 1st year of the Doctorate Course, attending a Course by the University of Parma (http://www.lass.unipr.it/en/teaching/italian-courses-foreigners) and passing the final exam, in order to be able to attend (at the 2nd year) the 'Preparatory Course' (by the Doctorate School in Engineering and Architecture) which is held in Italian.</p>	



INDUSTRIAL ENGINEERING	
Cycle	XXXV
Coordinator	Prof. Gianni ROYER CARFAGNI Department of Engineering and Architecture email: gianni.royer@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2019
Partner Institution for University Cooperation Agreements	<ul style="list-style-type: none">Universidade Federal de Santa Catarina (Brazil)
Research Topics	
<ul style="list-style-type: none">Theoretical and applied mechanics, mechanics of materials and structures, construction of machineryEconomic, organizational, managerial, plants and legal aspects in the field of engineeringEnergetic systems, thermos-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 programs <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2019.</p>	
POSITIONS PUT OUT TO COMPETITION	
With Scholarship	6
Without Scholarship	2
Reserved to holders of scholarship funded by foreign States	1
TOTAL	9



Positions with University Scholarship		
N°	Funding entity	Research Topic, if any
2	Scholarship Ministerial funds	---
1	Scholarship co-funded by Fondazione Cariparma	---
Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Call for applications)		
<p>During the Oral Exam, applicants may express their interest in being assigned a scholarship dedicated to a specific research topic to the Examination Board. The Board will express its judgement on eligibility to be assigned the scholarship in consideration of the specific competences, experience and specific aptitudes of the applicants.</p>		
N°	Funding entity	BOUND RESEARCH TOPIC
1	Funded by EMILIA ROMAGNA REGION 	<ul style="list-style-type: none"> Microstrucutre and properties of metallic components produced by additie manufacturing
1	Funded by EMILIA ROMAGNA REGION 	<ul style="list-style-type: none"> ATT-Hifood: Advanced Thermal Treatment for High Quality Food Products
1	Funded by EMILIA ROMAGNA REGION 	<ul style="list-style-type: none"> Sustainable Food Packaging: Life-Cycle Assessment of advanced packaging machines and plants in an Industry 4.0 perspective
<p><i>The assignment of the aforementioned scholarship funded by Emila Romagna Region is subject to the declaration of residence or domicile of the beneficiary in Emilia-Romagna</i></p>		
Position reserved to holders of scholarship fundend by foreign States		
N°	University or Foreign State	
1	Reserved to holders of Hochschule für Technik Stuttgart (Germany)	
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>		
ADMISSION PROCEDURES for positions reserved to holders of scholarship funded by foreign States		Assessment of QUALIFICATIONS: up to 120 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 traslating of a scientific text.	
Possibility of videoconference for candidates residing or temporarily abroad (the relevant request shall be submitted using the form attached to the competitive examination announcement) The candidate can use the Skype platform for the web connection		YES
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 2 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. 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	<p>Score related to the final mark:</p> <ul style="list-style-type: none"> - 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 <p>The scores will be proportionally renormalized in case of equivalent evaluations</p>	Up to 10 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2019)	<p>Score related to the average of the exam marks:</p> <ul style="list-style-type: none"> - 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; <p>The scores will be proportionally renormalized in case of equivalent evaluations</p>	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 degree in subjects consistent with the research topics of this PhD program, mobility experience abroad, grants, awards, internships 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



LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT Positions reserved to holders of scholarship funded by Foreign States

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
Graduation thesis	Consistency of the Master's Degree thesis with the doctoral program research topics	Up to 20 points
Research Project	Consistency of the Research Project with the doctoral program research topics	Up to 40 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 degree in subjects consistent with the research topics of this PhD program, mobility experience abroad, grants, awards, internships etc	Up to 5 points

SCHEDULE OF THE ADMISSION EXAMS

ORAL EXAM	DATE	12 September 2019
	TIME	10:00 am
	PLACE	Meeting Room – Building 10 Department of Engineering and Architecture Parco Area delle Scienze, 181/A – 43124 PARMA - ITALY
OTHER INFORMATION		For foreign candidates, the admission examinations may be held in English at the candidate's choice.



MATHEMATICS

Cycle	XXXV
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	01/11/2019
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">• Université d'Orléans (France)• 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 programs

Undergraduate applicants may also submit applications with the obligation of getting their degree by **October 31st 2019**.

POSITIONS PUT OUT TO COMPETITION


With Scholarship	11
Without Scholarship	2
TOTAL	13

Positions with University Scholarship

N°	Funding entity	Research Topic, if any
2	Scholarship University funds	---
3	Scholarship funded by University of Ferrara	---
3	Scholarship funded by University of Modena e Reggio Emilia	---
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 University of Ferrara with funds from EMILIA ROMAGNA REGION 	<ul style="list-style-type: none">• Mathematical and statistic methods for machine learning in biomedical and public health settings. Construction and analysis of automatic learning models, stochastic optimization methods, big data analytics and uncertainty quantification techniques.



1	<p>Funded by University of Modena e Reggio Emilia - Department of Physics, Informatics and Mathematics</p>	<ul style="list-style-type: none"> • Design, prototyping and validation of fail-operational, safety-compliant components for autonomous driving (AD) vehicles, with a particular focus on control components, and perception. Moreover, it will explore the adoption of embedded platforms based on multi-core host and heterogeneous many-core accelerators, such as NVIDIA Xavier or Xilinx Versal, for next generation of AD systems
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ADMISSION PROCEDURES

Assessment of QUALIFICATIONS: up to 60 points
ORAL EXAM: up to 60. points
Minimum score for ELIGIBILITY: 70/120

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 written/oral and will consist a short conversation and translation of a scientific text</p>
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At the discretion of the Examination Board, candidates (Italian and foreign) who request it will be able to support the interview by videoconference
 (the relevant request shall be submitted using the form a attached to the competitive examination announcement specifying the motivation)

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 his interests, 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	17 September 2019
	TIME	09:00 am
	PLACE	Department of Mathematical, Physical and Computer Sciences Parco Area delle Scienze, 53/A – 43124 PARMA - ITALY

Possible continuation of the Oral Exam: 18 September 2019 same time and same place

OTHER INFORMATION	For foreign candidates, the admission examinations may be held in English at the candidate's choice.
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MOLECULAR MEDICINE		
Cycle	XXXV	
Coordinator	Prof. Prisco MIRANDOLA Department of Medicine and Surgery email: prisco.mirandola@unipr.it	
Duration	3 years	
Starting date of the PhD program	01/11/2019	
Partner Institution for University Cooperation Agreements	<ul style="list-style-type: none">Aalborg University (Denmark)	
Research Topics		
<ul style="list-style-type: none">BiochemistryMolecular BiologyMicrobiology and Clinical MicrobiologyMedical OncologyTranslational OncologyPhysical Activity Sciences		
Training Objectives		
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 PhD students 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.		
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 programs Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2019 .		
POSITIONS PUT OUT TO COMPETITION		
With Scholarship	5	
Without Scholarship	1	
TOTAL	6	
Positions with University Scholarship		
N°	Funding entity	Research Topic, if any
4	Scholarship Ministerial 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 and discussion of a scientific text.
Possibility of videoconference for candidates residing or temporarily abroad	NO
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 and structured as follows: 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: a 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 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		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 2019)	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 of the Master's Degree thesis with the doctoral program research topics	Up to 7 points
Research Project		Up to 10 points
Statement of Research Interest		Up to 10 points
Scientific publications		Up to 10 points
Reference Letters		Up to 3 points
Other qualifications	Academic qualifications/experience abroad/grants, scholarships and awards	Up to 5 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"> ○ discussione of the thesis ○ knowledge of chosen topic ○ proficiency in the foreign language 	Up to 60 points
SCHEDULE OF THE ADMISSION EXAMS		
ORAL EXAM	DATE	13 September 2019
	TIME	09:30 am
	PLACE	Meeting Room - TOWER B Integrated Biotechnological Plexus Via Volturmo, 39 – 43125 PARMA - ITALY
OTHER INFORMATION	For foreign candidates, the admission examinations may be held in English.	



NEUROSCIENCES		
Cycle	XXXV	
Coordinator	Prof. Vittorio GALLESE Department of Medicine and Surgery email: vittorio.gallese@unipr.it	
Duration	3 years	
Starting date of the PhD program	01/11/2019	
Partner Institution	<ul style="list-style-type: none">Neuroscience Institute (Italian National Research Council C.N.R.)	
Research Topics		
<ul style="list-style-type: none">Integrative Human neurosciences: integrative neurophysiology; social and cognitive neurosciences: cognitive psychologyBehavioral biology: ethological, psychobiological and behavioral study of development, social cognition, agonistic and sexual behavior, in animals and humans		
Training Objectives		
<ul style="list-style-type: none">To give a global and interdisciplinary view of the proposed research fields providing a deep research focusTo acquire skills and abilities in the autonomous use of at least one neuroscientific techniqueTo promote an 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 programs Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2019 .		
POSITIONS PUT OUT TO COMPETITION		
With Scholarship	6	
TOTAL	6	
Positions with University Scholarship		
N°	Funding entity	Research Topic
3	Scholarship University funds	<ul style="list-style-type: none">Human integrative neurosciences
1	Scholarship co-funded by Fondazione Cariparma	<ul style="list-style-type: none">Behavioral biology



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

During the Written 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
2	Funded by Neuroscience Institute (Italian National Research Council C.N.R.)	<ul style="list-style-type: none">• Electrophysiological study of the cortical mechanisms underpinning action recognition in virtual reality• Action Observation Treatment as a clinical preventive tool and as prosthetic tool for motor learning

ADMISSION PROCEDURES

Assessment of QUALIFICATIONS: up to 40 points

(a minimum score of 20 points shall be required to be admitted to the Written Exam)

WRITTEN EXAM: up to 40 points

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: 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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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 Articles and/or reviews in scientific journals with peer reviewing, abstracts/papers/posters presented at conferences or symposia, book chapters etc.;
- **Academic qualifications:** First or Second Master's degree 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
Graduation mark	Score related to the final mark: - 110 with honours (magna cum laude): 10 points - 110: 6 points; - From 105 to 109: 3 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 2019)	Score related to the average of the exam marks: - 30 with honours (magna cum laude): 10 points - 30/30: 6 points - From 25/30 to 29/30: 3 points - Under 25/30: 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	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: 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	1 point for every important post-graduate experience (research grant, scholarship, non-curricular interships, mobility experience abroad, a post graduate master's degree, specialization degree, etc)	Up to 5 points



WRITTEN EXAMINATION		EVALUATION CRITERIA AND POINTS
<p>Written examination themes for Human Integrative Neuroscience:</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) Neurobiology of language 9) Neurobiology of attention 10) Memory and learning 11) Analytic methods of electroencephalographic signal in time and frequencies domains 12) Functional connectivity methods for electrophysiological signals 13) Source localization methods of electrophysiological signals <p>Themes 11, 12 and 13 are aimed at candidates who intend to compete for the bound research topic "Electrophysiological study of the cortical mechanisms underpinning action recognition in virtual reality".</p>		<p style="text-align: center;">Up to 40 points:</p> <ul style="list-style-type: none"> ○ 40 points if the written examination is exhaustive and well argued ○ 0 points if the written examination is insufficient
<p>Written examination themes for Behavioral Biology:</p> <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 		
<p>Three themes will be sorted for human integrative neuroscience. Two themes will be sorted for behavioral biology. Among the sorted themes, candidates will have the faculty to choose which one address</p>		
ORAL EXAMINATION	EVALUATION CRITERIA	POINTS
<p>The oral examination will focus on the candidate's written exam and research project, as well as, on the discussion of her/his motivation to attend the doctoral course. Knowledge of the English language (or of any optional foreign language) will be assessed.</p>	<ul style="list-style-type: none"> ○ knowledge of foreign languages: 10 points ○ research project presentation: 20 points ○ general knowledge of issues connected to the PhD course and candidate's motivation: 10 points 	<p>Up to 40 points</p>



SCHEDULE OF THE ADMISSION EXAMS		
WRITTEN EXAM	DATE	16 September 2019
	TIME	10:00 am
	PLACE	Reading room Department of Medicine and Surgery Neuroscience Unit - Building E - 1 st Floor Via Volturmo, 39 - 43125 PARMA - ITALY
ORAL EXAM	DATE	17 September 2019
	TIME	10:00 am
	PLACE	Reading room Department of Medicine and Surgery Neuroscience Unit - Building E - 1 st Floor Via Volturmo, 39 - 43125 PARMA - ITALY
OTHER INFORMATION	For foreign candidates, the admission examinations may be held in English at the candidate's choice.	



PSYCHOLOGY

Cycle	XXXV	
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	01/11/2019	
Partner Institution for University Cooperation Agreements	<ul style="list-style-type: none">• Universitat Autònoma de Barcelona (Spain)	
Research Topics		
<ul style="list-style-type: none">• Basic psychological processes• Psychosocial processes in complex societies• Learning and developmental processes• Clinical and social intervention		
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: - 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 programs Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2019 .		
POSITIONS PUT OUT TO COMPETITION		
With Scholarship		3
Reserved to employees of companies having an "Industrial Doctorate" arrangement		1
	TOTAL	4
Positions with University Scholarship		
N°	Funding entity	Research Topic, if any
1	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 Humanities, Social Sciences and Cultural Industries (Project PRIN2017RRKELF_003)	<ul style="list-style-type: none">Moral Education curriculum. The challenge of adolescents' moral education

Position reserved according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013 (Industrial Doctorate)

N°	Company/Institution
1	Reserved to employees of CIAC 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.
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Possibility of videoconference for candidates residing or temporarily abroad
(the relevant request shall be submitted using the form attached to the competitive examination announcement)

YES

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):
 - o University that granted the degree
 - o Type of degree (first cycle/second cycle/single cycle)
 - o Name of the degree programme
 - o Date of graduation
 - o Final mark
 - o List of exams and corresponding scores (academic transcript of records)
 - o 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 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 programme;
- **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	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	Up to 10 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2019)	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
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 nternal 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 pints 	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 projec: 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 2019	
	TIME	09:30 am	
	PLACE	ROOM A – Polo Didattico di Via del Prato 43121 PARMA - ITALY	
OTHER INFORMATION		For foreign candidates, the admission examinations may be held in English at the candidate's choice.	



MATERIALS SCIENCE AND TECHNOLOGY

Cycle	XXXV
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	01/11/2019
Partner Institution	<ul style="list-style-type: none">• The Italian National Research Council (C.N.R.)• Cape Town University (South Africa)
Partner Institution for University Cooperation Agreements	<ul style="list-style-type: none">• Kazan University (Russia)• Stockholm University (Sweden)

Research Topics

- Photovoltaic devices
- Functional materials
- Strongly correlated systems
- Nanodiagnostics
- Nanostructured materials
- Supramolecular sensors and devices
- Semiconductive massive crystals
- Low dimensionality semiconductive structures
- Self-healing and self-diagnostic polymers
- Surface supported molecular materials
- Magnetic materials and magneto-refrigeration
- Ceramic and composite materials
- Materials and devices for memristic devices and for bioelectronics

Training Objectives

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.


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 programs

Undergraduate applicants may also submit applications with the obligation of getting their degree by **October 31st 2019**.



POSITIONS PUT OUT TO COMPETITION		
With Scholarship		10
Without Scholarship		2
	TOTAL	12
Positions with University Scholarship		
N°	Funding entity	Research Topic* (*Amended by Rector's Decree n. 1758 of 23.07.2019)
3	Scholarship Ministerial funds	<ul style="list-style-type: none"> New ultrarefractory ceramic composites for applications spanning from aerospace to tribology Volatile biomarkers' sensors Hybrid nanosystems for biomedical applications by conjugation of organic compounds to nanostructured materials
3	Scholarship funded by The Italian National Research Council (C.N.R.)	<ul style="list-style-type: none"> Advanced multifunctional magnetic materials Recovery, regeneration and production of lithium ion batteries Transparent ceramics for optical applications
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 EMILIA ROMAGNA REGION  <i>The assignment of this scholarship is subject to the declaration of residence or domicile of the beneficiary in Emilia-Romagna</i>	<ul style="list-style-type: none"> Biomimetic composite adhesives for automotive
2	Funded by the Department of Chemistry, Life Sciences and Environmental Sustainability	<ul style="list-style-type: none"> Hybrid materials for mass spectrometry Optical spectroscopy of molecular functional materials
1	Cofunded by SABIC Global Technologies B.V. and by Department of Chemistry, Life Sciences and Environmental Sustainability	<ul style="list-style-type: none"> Ionic Multifunctional Polyolefins for Advanced Automotive and Construction Applications
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.	
Possibility of videoconference for candidates residing or temporarily abroad (the relevant request shall be submitted using the form attached to the competitive examination announcement) THE INTERVIEW MAY BE HELD ALSO IN ENGLISH		YES
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 programme ○ Date of graduation ○ Final mark ○ List of exams and corresponding scores (academic transcript of records) ○ Translation into Italian or English (only for degrees issued in languages other than Italian or English) 		
Further qualifications that may be attached to the application, if in possession of the applicant (only qualifications attested by a document drawn up in Italian or in English)		
<ul style="list-style-type: none"> – 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 reasons 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 honours (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 2019)	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 2019
	TIME	09:30 am
	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	XXXV
Coordinator	Prof. Roberto CORRADINI Department of Chemistry, Life Sciences and Environmental Sustainability email: roberto.corradini@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2019
Research Topics	
<p>a) Supramolecular approach for the synthesis of working devices and molecular machines</p> <p>b) Bio-inorganic strategies for the development of metalloenzyme inhibitors and compounds with anticancer activity</p> <p>c) Eco-sustainable nanomaterials derived from cellulose for technological applications in the fields of environment, health and cultural heritage</p> <p>d) Diastereoselective polycyclization cascades promoted by visible light</p> <p>e) Optical spectroscopy of functional molecular materials: from experimental complexity to models</p> <p>f) Synthesis of macrocyclic compounds for the interaction with biomacromolecules (within the project PRIN2017 "BacHounds: Supramolecular nanostructures for bacteria detection", Prot. 2017E44A9P)</p> <p>g) Development of analytical methods for food quality and safety assessment (within the project PRIN2017 2017YER72K "Development of novel DNA-based analytical platforms for the rapid, point-of-use quantification of multiple hidden allergens in food samples")</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 programs <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2019.</p>	



POSITIONS PUT OUT TO COMPETITION		
With Scholarship		7
TOTAL		7
Positions with University Scholarship		
N°	Funding entity	Research Topic
4	Scholarship Ministerial funds	<ul style="list-style-type: none"> see topics at points a) – e) above
1	Scholarship co-funded by Fondazione Cariparma	<ul style="list-style-type: none"> see topics at points a) – e) above
1	Funded by the Department of Chemistry, Life Sciences and Environmental Sustainability (for co-financing Project PRIN2017, 2017E44A9P and Departments of Excellence program)	<ul style="list-style-type: none"> topic f): " Synthesis of macrocyclic compounds for the interaction with biomacromolecules"
1	Funded by the Department of Chemistry, Life Sciences and Environmental Sustainability (for co-financing Project PRIN2017, 2017YER72K and Departments of Excellence program)	<ul style="list-style-type: none"> topic g): " Development of analytical methods for food quality and safety assessment"
ADMISSION PROCEDURES		
Assessment of QUALIFICATIONS: up to 40 points (a minimum score of 20 points shall be required to be admitted to the Oral Exam) ORAL EXAM: up to 80 points Minimum score for ELIGIBILITY: 70/120		
Foreign Language	Language the fluency of which shall be assessed during the Oral Exam: ENGLISH . The evaluation of the knowledge of this language will be oral and will be evaluated at the level of discussion of research topics and / or understanding of scientific texts.	
Possibility of videoconference for candidates residing or temporarily abroad (the relevant request shall be submitted using the form attached to the competitive examination announcement) THE INTERVIEW MAY BE HELD ALSO IN ENGLISH		YES
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) – Summary of the second cycle master's degree thesis. Undergraduate applicants may submit the summary of the thesis work approved by their supervisor (about 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 programme ○ Date of graduation ○ Final mark ○ List of exams and corresponding scores (academic transcript of records) ○ Translation into Italian or English (only for degrees issued in languages other than Italian or English) 		



- **Statement of Research Interest:** Short text – maximum 2 pages – 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 in the chemical field	Up to 15 points
Graduation thesis	Consistency of the Master's Degree thesis with the doctoral programme research topics	Up to 15 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 relevant to the Chemical Sciences	Up to 5 points
ORAL EXAMINATION	EVALUATION CRITERIA	POINTS
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 his scientific preparation and of his design skills.	<ul style="list-style-type: none"> ○ knowledge of the subject and preparation of the candidate for the proposed research activities. ○ knowledge of English is assessed at the level of discussion of topics of research and understanding of scientific texts. 	Up to 80 points

SCHEDULE OF THE ADMISSION EXAMS


ORAL EXAM	DATE	16 September 2019
	TIME	10.00 am
	PLACE	ROOM A - Chemistry Building Department of Chemistry, Life Sciences and Environmental Sustainability Parco Area delle Scienze, 17/A – 43124 PARMA - ITALY
OTHER INFORMATION	The admission examinations may be held in English at the candidate's choice.	



FOOD SCIENCE

Cycle	XXXV	
Coordinator	Prof.ssa Chiara DALL'ASTA Food and Drug Department email: chiara.dallasta@unipr.it	
Duration	3 years	
Starting date of the PhD program	01/11/2019	
Research Topics		
<ul style="list-style-type: none">• Unraveling the molecular determinants of protein digestion• Lactic acid bacteria in cheese production: from knowledge of the past to prospects for the future• Plant cells and cultured cereals as biofactories for food additives• CAN-QUEST – Canteen Quality Elevation for University Students• Complex indigestible polysaccharides: structural elucidation, enzymatic - hydrolysis and food applications• Novel Analytical Strategies combined with Multivariate Analysis for solving Complex Issues within Food Integrity and Sensomics• Study on the nutritional and functional properties as well as digestibility of innovative protein meat-substitutes• Identification of dietary pattern through metabolomics• Studies and education interventions for best practices promotion in school canteens in Parma		
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 (food microbiology, food technology, food chemistry, food biotechnology, human nutrition and food safety)		
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 programs Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2019 .		
POSITIONS PUT OUT TO COMPETITION		
With Scholarship		8
Reserved to employees of companies having an "Industrial Doctorate" arrangement		1
	TOTAL	9



Positions with University Scholarship		
N°	Funding entity	Research Topic
3	Scholarship Ministerial funds	<ul style="list-style-type: none"> Organic Chemistry Food Microbiology Pharmaceutical Biology
1	Scholarship co-funded by Fondazione Cariparma	<ul style="list-style-type: none"> Human Nutrition
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 EMILIA ROMAGNA REGION  <i>The assignment of this scholarship is subject to the declaration of residence or domicile of the beneficiary in Emilia-Romagna</i>	<ul style="list-style-type: none"> Study on the nutritional and functional properties as well as digestibility of innovative protein meat-substitutes
1	Funded by the Department of Veterinary Science	<ul style="list-style-type: none"> Identification of dietary pattern through metabolomics
1	Funded by SOREMARTEC ITALIA S.r.l.	<ul style="list-style-type: none"> Complex indigestible polysaccharides: structural elucidation, enzymatic - hydrolysis and food applications
1	Funded by Barilla G. e R. Fratelli S.p.A.	<ul style="list-style-type: none"> Novel Analytical Strategies combined with Multivariate Analysis for solving Complex Issues within Food Integrity and Sensomics
Position reserved according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013 (Industrial Doctorate)		
N°	Company/Institution	
1	Reserved to employees of the Municipality of Parma	
ADMISSION PROCEDURES		
Assessment of QUALIFICATIONS: up to 30 points ORAL EXAM: up to 90 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 test.	
Possibility of videoconference for candidates residing or temporarily abroad		NO



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 programme
 - Date of graduation
 - Final mark
 - List of exams and corresponding scores (academic transcript of records)
 - Translation into Italian or English (only for degrees issued in languages other than Italian or English)

Further qualifications that may be attached to the application, if in possession of the applicant (only qualifications attested by a document drawn up in Italian or in English)

- **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, also in relation to the research topics described above;
- **Scientific Publications:** Articles on national and international journals, papers presented at conferences or symposia, abstracts of reports or posters presented at international conventions;
- **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 (exaple grants, awards, mobility experience abroad, specialization degree) 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 8 points
Graduation mark	Score related to the final mark: - 110 with honours (magna cum laude): 4 points - 110: 3 points - From 105 to 109: 2 points - From 99 to 104: 1 point - Under 99: 0 points	Up to 4 points



Average of the exam marks (if the candidate will attain the degree no later than 31 October 2019)	Score related to the average of the exam marks: - 30/30: 4 points - From 28/30 to 29.9/30: 3 points - From 26/30 to 27.9/30: 2 points - From 24/30 to 25.9/30: 1 point	Up to 4 points
Graduation thesis	Consistency of the thesis subject with the training objectives of the PhD program	Up to 4 points
Statement of Research Interest	Short text – maximum 1 page – in Italian or in English, aimed at explaining the candidate's reasons to attend the PhD and at describing the specific research interests	Up to 5 points
Scientific publications	Articles on national and international journals, papers presented at conferences or symposia, abstracts of reports or posters presented at international conventions	Up to 7 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 consist in: 1)critical reading of a scientific publication chosen among those proposed by the Commission within the chosen research themes; 2)subsequent interview on the contents of the scientific publication chosen by each candidate	<ul style="list-style-type: none"> ○ knowledge of the written and oral foreign language: points 30 ○ ability to argue on the interpretation of the scientific impact of the research described in the text: points 20 ○ critical capacity in identifying the strengths and weaknesses of the research described in the text: points 20 ○ ability to identify future research prospects opened by the research described in the text: points 20 	Up to 90 points
SCHEDULE OF THE ADMISSION EXAMS		
ORAL EXAM	DATE	16 September 2019
	TIME	10:30 am
	PLACE	ROOM A – Didactic Center of Food and Drug Department (Padiglione 19 Food Project of the University) Parco Area delle Scienze, 47/A – 43124 PARMA - ITALY
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.	



DRUG SCIENCES	
Cycle	XXXV
Coordinator	Prof. Marco MOR Food and Drug Department email: marco.mor@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2019
Participation with positive results in international calls	Progetto UE H2020 – MSCA ITN "Innovative Training Networks" ITN-2018 "ORBITAL 813440" <ul style="list-style-type: none">• Development of ex-vivo models for smart screening of novel colloidal ocular formulations
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	
<p>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.</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 programs <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2019.</p>	
POSITIONS PUT OUT TO COMPETITION* (* Amended by Rector's Decree n. 1870 of 02.08.2019)	
With Scholarship	9



		TOTAL	9
Positions with University Scholarship			
N°	<i>Funding entity</i>	<i>Research Topic</i>	
3	Scholarship Ministerial funds	<ul style="list-style-type: none"> • Biopharmaceutics – Pharmacokinetics • Experimental Pharmacology and Toxicology • Drug Design and Synthesis 	
1	Scholarship University funds	<ul style="list-style-type: none"> • Bio-organic chemistry 	
1	Scholarship co-funded by Fondazione Cariparma	<ul style="list-style-type: none"> • Biochemistry and Molecular Biology 	
Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Call for applications) *			
(* Amended by Rector's Decree n. 1870 of 02.08.2019)			
<p>During the Oral Exam, applicants may express their interest in being assigned assigned a scholarship linked to a specific research topic. The Board will express its judgement on eligibility for scholarships linked to specific topics, in consideration of the specific competences, experience and specific attitudes of the applicants.</p>			
N°	<i>Funding entity</i>	<i>SPECIFIC RESEARCH TOPIC</i>	
1	Funded by the Food and Drugs Department	<ul style="list-style-type: none"> • A multistage model of thyroid gland function for screening endocrine-disrupting chemicals in a biologically sex specific manner 	
1	Funded by the Food and Drugs Department	<ul style="list-style-type: none"> • Microscale Thermophoresis in Drug Discovery 	
1	Funded by the Food and Drugs Department (Project PRIN2017 Sector ERC_LS7, CUP D94I19001010001)	<ul style="list-style-type: none"> • Cutaneous and mucosal drug delivery 	
1	Funded by the Food and Drugs Department	<ul style="list-style-type: none"> • ORIGINALE CHEMIAE in Antiviral Strategy – evolution-inspired chemistry to develop new Broad-Spectrum Antivirals 	
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 traslating of a scientific text.</p>		
Possibility of videoconference for candidates residing or temporarily abroad			NO
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 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: 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 2019
	TIME	09:30 am
	PLACE	Food and Drugs Department 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.	



EARTH SCIENCES

Cycle	XXXV	
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	01/11/2019	
Research Topics	<ul style="list-style-type: none">• Turbidite sedimentation from hypercritical turbid flows in confined basins• Experimental study and numerical modelling of infiltration and flow processes in low-permeability landslide complexes• Mineralogy of bottom ashes from MSWI: an investigation on the amorphous phases• Messinian salinity crisis and ecological impact in the adriatic-balcan area	
Training Objectives	<p>The main goal of the Doctoral Course in Earth Sciences is to provide highly qualified educational and research training in numerous Scientific Disciplinary Sectors specific to Geosciences, aiming at an interdisciplinary perspective</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 programs <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2019.</p>	
POSITIONS PUT OUT TO COMPETITION		
With Scholarship		4
	TOTAL	4
Positions with University Scholarship		
N°	Funding entity	Research Topic, if any
2	Scholarship Ministerial funds	---
1	Scholarship co-funded by Fondazione Cariparma	---



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

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	<ul style="list-style-type: none">Mineralogy of bottom ashes from MSWI: an investigation on the amorphous phases

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

Possibility of videoconference for candidates residing or temporarily abroad
(the relevant request shall be submitted using the form attached to the competitive examination announcement)

YES

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 programme
 - Date of graduation
 - Final mark
 - List of exams and corresponding scores (academic transcript of records)
 - Translation into Italian or English (only for degrees issued in languages other than Italian or English)

Further qualifications that may be attached to the application, if in possession of the applicant
(only qualifications attested by a document drawn up in Italian or in English)



- **Research Project:** The research project shall consist of a maximum of 3 pages, be written in Italian or in English, focus on an original research topic and it shall be structured as follows: introduction of the problem in the scientific context, significance of the problem, experimental procedure, expected results; it does not represent a constraint with respect to the following choice of the doctoral thesis, that shall be defined together with the supervisor and approved by the Academic Board;
- **Statement of Research Interest:** Short text – maximum 1 page – in Italian or in English, aimed at explaining the candidate's reasons to attend the PhD programme and at describing the specific her/his research interests, assessed in the curriculum vitae;
- **Scientific Publications:**
 - o Articles on national and international journals, papers presented at conferences or symposia, book chapters
 - o 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 other Master's 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): 10 points - from 107 to 109: 9 points - from 105 to 106: 7 points - from 100 to 104: 5 points - from 95 to 99: 2 points - under 95: 1 point	Up to 10 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2019)	Score related to the average of the exam marks: - from 28 to 30: 10 points - from 27 to 27.99: 9 points - from 26.5 to 26.99: 7 points - from 26 to 26.49: 5 points - from 25 to 25.99: 2 points - under 25: 1 point	Up to 10 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: o Scientific value and ground-breaking nature of the proposal: 1 point o description and structure of the proposal: 1 point o proposal feasibility: 1 point	Up to 3 points



Scientific publications	<ul style="list-style-type: none">– Abstract presented at a national or international congress: 1 point– Articles on scientific journals (ISI): 5 points– Other publication (related to the topics of PhD program): 1 point	Up to 5 points
Reference Letters	A maximum of 2 written by professors or researchers at the University of origin of the candidate or from other universities or from experts in the research areas working in public or private research 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	12 September 2019
	TIME	09:00 am
	PLACE	Plexus of Earth Sciences Parco Area delle Scienze, 157/A – 43124 PARMA - ITALY
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	XXXV
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	01/11/2019
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, aesthetics, philosophy of language, 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> <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</p>



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 programs

Undergraduate applicants may also submit applications with the obligation of getting their degree by **October 31st 2019**.

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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Possibility of videoconference for candidates residing or temporarily abroad
(the relevant request shall be submitted using the form attached to the competitive examination announcement)

YES

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 may 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, including reference bibliography, written in Italian or in English; 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**: 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 programme
- **Experience abroad** for 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 2019)	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, convention 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 intend to assess the suitability of the applicant to pursue scientific research regarding the chosen research topic; it also include the verification of the knowledge of the chosen foreign language	<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	18 September 2019
	TIME	09:00 am
	PLACE	ROOM "EX PRESIDENZA" Department of Humanities, Social Sciences and Cultural Industries Via D'Azeglio, 85 – 43125 PARMA - ITALY
OTHER INFORMATION	For foreign candidates, the admission examinations may be held in English.	



TRASLATIONAL MEDICAL AND SURGICAL SCIENCES

Cycle	XXXV
Coordinator	Prof. Carlo FERRARI Department of Medicine and Surgery email: carlo.ferrari@unipr.it
Duration	3 years
Starting date of the PhD program	01/11/2019

Research Topics
<ol style="list-style-type: none">1. Stem cells in diagnosis and treatment of neoplasia, chronic and degenerative disorders, cardiovascular, 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
<p>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.</p>



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 programs

Undergraduate applicants may also submit applications with the obligation of getting their degree by **October 31st 2019**.

POSITIONS PUT OUT TO COMPETITION

With Scholarship	7
Without Scholarship	2
Reserved to holders of Research Grant	1
Reserved to holders of scholarship within specific international mobility programs	2
TOTAL	12

Positions with University Scholarship

N°	Funding entity	Research Topic, if any
3	Scholarship Ministry 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 Written 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	<ul style="list-style-type: none"> • Models of bio-psycho-socio spiritual and environmental medicine in the primary health care in different cultural settings
1	Funded by Azienda USL di Piacenza	<ul style="list-style-type: none"> • Objective evaluation of "listening effort"

Position reserved to holders of Research Grant

N°	Subject area of the research
1	International collaboration between advanced health care systems and less performing systems on the quality of primary health care



Position reserved to holders of scholarship within specific international mobility programs

N°	Agreements/Cooperations/Mobility Programs
2	Reserved for scholarship holders under the program, promoted by the Italian Agency for Development Cooperation (AICS) with resolution no. 169 of 12.21.2017, called "The Partnership for Knowledge" (AID 11374)

ADMISSION PROCEDURES

Assessment of **QUALIFICATIONS**: up to 30 points

WRITTEN EXAM: up to 60 points

ORAL EXAM: up to 30 points

Minimum score for ELIGIBILITY: 70/120

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

Assessment of QUALIFICATIONS: up to 120 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.

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;



- **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 (The candidate must upload them through the procedure of the competition online registration)
- **Academic qualifications:** First or Second level Master's degree 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 6 points
Graduation mark	Score related to the final mark: - 110 with honours (magna cum laude): 4 points - 110: 3 points - From 106 to 109: 2 points - From 102 to 105: 1 point	Up to 4 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2019)	Score related to the average of the exam marks: - 30/30: 4 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 4 points
Graduation thesis	Consistency of the Master's Degree thesis with the doctoral program research topics	Up to 1 point
Research Project	Points relating to the research project shall be allocated on the basis of the following criteria: ○ Scientific value and ground-breaking nature of the proposal: max 6 points ○ description and structure of the proposal: 1 point ○ proposal feasibility: 1 point	Up to 8 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 5 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 2 points
Other qualifications	Grants, mobility experience abroad, awards, internships, etc	Up to 3 points



WRITTEN EXAMINATION	EVALUATION CRITERIA	POINTS
The WRITTEN 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 and clear presentation: up to 10 points ○ scientific relevance: up to 10 points ○ methodological and/or technological innovation: up to 10 points ○ Experimental design: up to 10 points ○ Translationality: up to 10 points ○ Feasibility: up to 10 points 	Up to 60 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 10 points ○ Discussion of the critical points of the project: up to 8 points ○ Framing of the project in the field of knowledge of the sector: up to 5 points ○ Ability to mitigate risks deriving from unexpected results: up to 5 points ○ knowledge of the foreign language: up to 2 points 	Up to 30 points
LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT		
Positions reserved to scholarship holders within specific internationale mobility programs		
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 25 points
Graduation thesis	Consistency of the Master's Degree thesis with the doctoral program research topics	Up to 5 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: max 25 points ○ description and structure of the proposal: max 5 points ○ proposal feasibility: max 5 points 	Up to 35 points
Statement of Research Interest	Short text – maximum 1 page – in Italian or in English, aimed at explaining the candidate's reasons to attend the PhD program and at describing her/his specific research interests	Up to 5 points
Scientific Publications	Articles on national and international journals, papers presented at conferences or symposia, book chapters etc	Up to 25points
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 10 points
Other qualifications	Grants, mobility experience abroad, awards, internships, language certificates, etc	Up to 15 points



SCHEDULE OF THE ADMISSION EXAMS		
WRITTEN EXAM	DATE	13 September 2019
	TIME	09:00 am
	PLACE	Department of Medicine and Surgery Building 26 – Internal Medicine CLASSROOM Via A. Gramsci, 14 - 43126 PARMA - ITALY
ORAL EXAM	DATE	13 September 2019
	TIME	03.00 pm
	PLACE	Department of Medicine and Surgery Building 26 – Internal Medicine CLASSROOM Via A. Gramsci, 14 - 43126 PARMA - ITALY
OTHER INFORMATION	For foreign candidates, the admission examinations may be held in English at the candidate's choice.	



VETERINARY SCIENCES		
Cycle	XXXV	
Coordinator	Prof. Gaetano DONOFRIO Department of Veterinary Science email: gaetano.donofrio@unipr.it	
Duration	3 years	
Starting date of the PhD program	01/11/2019	
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 2019 .		
POSITIONS PUT OUT TO COMPETITION		
With Scholarship	5	
TOTAL	5	
Positions with University Scholarship		
N°	Funding entity	Research Topic, if any
2	Scholarship Ministerial funds	---
2	Scholarship University funds	---
1	Scholarship co-funded by Fondazione Cariparma " Carlo Gabbi "	---



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.

Possibility of videoconference for candidates residing or temporarily abroad

NO

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 programme
 - Date of graduation
 - Final mark
 - List of exams and corresponding scores (academic transcript of records)
 - Translation into Italian or English (only for degrees issued in languages other than Italian or English)

Further qualifications that may be attached to the application, if in possession of the applicant

(only qualifications attested by a document drawn up in Italian or in English)

- **Research Project:** The research project shall consist of a maximum of 3 pages, be written in Italian or in English, focus on an original research topic and it shall be structured as follows: introduction of the problem in the scientific context, significance of the problem, 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 5 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	17 September 2019
	TIME	10:00 am
	PLACE	ROOM "G" 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	XXXV	
Coordinator	Prof. Marco LOCATELLI Department of Engineering and Architecture email: marco.locatelli@unipr.it	
Duration	3 years	
Starting date of the PhD program	01/11/2019	
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		
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 programs Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2019 .		
POSITIONS PUT OUT TO COMPETITION		
With Scholarship	7	
Without Scholarship	2	
Covered by High Internship and Research Agreements	1	
TOTAL	10	
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 Engineering and Architecture	<ul style="list-style-type: none"> Computer Vision applications for Autonomous Driving
1	Funded by EMILIA ROMAGNA REGION 	<ul style="list-style-type: none"> MAN3DP: Mapping And Navigation based on 3D Perception
1	Funded by EMILIA ROMAGNA REGION 	<ul style="list-style-type: none"> Information Engineering - ICT for Intelligent and Sustainable Cities - Smart City regional coordination 4.0

The assignment of the aforementioned scholarship funded by Emilia Romagna Region is subject to the declaration of residence or domicile of the beneficiary in Emilia-Romagna

Position Covered by High Internship and Research Agreements

N°	Company/Institution	BOUND RESEARCH TOPIC
1	Elettric80 S.p.A.	<ul style="list-style-type: none"> Advanced perception and sensor fusion techniques applied to navigation of industrial autonomous vehicles

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).
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Possibility of videoconference for candidates residing or temporarily abroad
(the relevant request shall be submitted using the form attached to the competitive examination announcement)

YES

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 programme
 - Date of graduation
 - Final mark
 - List of exams and corresponding scores (academic transcript of records)
 - Translation into Italian or English (only for degrees issued in languages other than Italian or English)

Further qualifications that may be attached to the application, if in possession of the applicant
(only qualifications attested by a document drawn up in Italian or in English)

- **Research Project:** The research project shall consist of a maximum of 3 pages, be written in Italian or in English, focus on an original research topic and it shall be structured as follows: introduction of the problem in the scientific context, significance of the problem, 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 phd.dii.unipr.it in order to prepare a research project compatible with them.</p> <p><i><u>It does not represent a constraint with respect to the following choice of the doctoral thesis</u></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	16 September 2019 (with possible extention to 17 September 2019)
	TIME	09:00 am
	PLACE	Meeting Room – Building 2 - Scientific Branch of Engineering Parco Area delle Scienze, 181/A – 43124 PARMA - ITALY
OTHER INFORMATION	<p>It is possible to give the admission exams in English and <i>via Skype</i> under request and under approval of the admission board. It is compulsory to specify the skype account in the curriculum.</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>	