



## ECONOMICS & MANAGEMENT OF INNOVATION AND SUSTAINABILITY (EMIS)

CYCLE	XXXVIII
COORDINATOR	Prof.ssa Beatrice LUCERI Department of Economics and Management email: <a href="mailto:beatrice.luceri@unipr.it">beatrice.luceri@unipr.it</a>
DURATION	3 years
STARTING DATE OF THE PHD PROGRAM	01/01/2023
PARTNER INSTITUTION	<ul style="list-style-type: none"> <li>University of Ferrara</li> <li>University Cattolica del Sacro Cuore</li> </ul>
<b>RESEARCH TOPICS</b> (The candidate <b>MUST mandatorily</b> indicate one research topic in the form ANNEX A and submit a RESEARCH PROJECT in the relevant field)	
<ul style="list-style-type: none"> <li>Regulatory aspects and effects of agricultural and agri-food policies</li> <li>Branding and value creation</li> <li>Consumer behavior and marketing management</li> <li>Determination and communication of value in businesses</li> <li>Knowledge economy, organization, human capital and labour</li> <li>Culture economics: management and policies</li> <li>Environmental and natural resources economics</li> <li>Economics and public management</li> <li>Economics and industrial and development policy</li> <li>Finance and risk management</li> <li>Health care and health management</li> <li>Performance evaluation, balance analysis and business management auditing</li> <li>New entrepreneurship, business strategy and management development</li> <li>Intangible resources and management systems, financial and non-financial assessment and reporting</li> <li>Economic decisions under uncertain contexts</li> <li>Regional and territorial systems</li> </ul>	
<b>TRAINING OBJECTIVES</b>	
<p>The course is designed to train Ph.D. students having a background in economic-business and economic-political, according to a theoretical and quantitative perspective and integrating – as a particular specificity of the course – economic, management, and mathematical-statistical tools. The aim is to provide students with the knowledge and skills useful for successful employability in academia, in companies or public authorities in job positions with a strong research connotation in the regional, Italian and European labor markets.</p> <p>To this end, the Ph.D. program is structured to develop:</p> <ul style="list-style-type: none"> <li>- a solid knowledge of the processes of business management and organization, as well as the processes of management of socio-economic phenomena and policy at regional and macroeconomic levels, through the completion of the basic preparation and the learning of appropriate research methodologies;</li> <li>- a specialized theoretical and applicative preparation in the specific research area in which the Ph.D. program has declined the innovation and sustainability topic.</li> </ul> <p>The educational objectives are achieved by offering a set of courses on consolidated and innovative research methods in the social sciences, qualitative and quantitative analysis tools and on the most relevant theoretical perspectives, with a strong interdisciplinary approach. Specifically, the first year is devoted to transferring the basic knowledge needed to appropriately structure the research project. The courses deal with bibliographic research, research design, quantitative and qualitative research techniques, tools for analyzing qualitative and quantitative data, and decision-making models of different economic actors. Starting from the second year, specific research activities, lectures and seminars consistent with the Ph.D. student's field</p>	

of research, as well as courses aimed at the development of soft skills, language skills, and computer skills, complete the training. At the same time, the Ph.D. student starts writing the thesis that represents the main commitment of the third year. Special emphasis is placed on international mobility and periods of study abroad at qualified research institutions, aimed at individual growth and the advancement of the doctoral thesis project. In summary, a training course that, after providing the methodological foundations of scientific research, is custom designed on the specific interests and skills of each Ph.D. student.

<b>ADMISSION REQUIREMENTS</b>	<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"> <li>- "Laurea Magistrale" LM-16 Finance</li> <li>- "Laurea Magistrale" LM-31 Management Engineering</li> <li>- "Laurea Magistrale" LM-35 Environmental Engineering</li> <li>- "Laurea Magistrale" LM-40 Mathematics</li> <li>- "Laurea Magistrale" LM-52 International relations</li> <li>- "Laurea Magistrale" LM-56 Economics</li> <li>- "Laurea Magistrale" LM-62 Political Science</li> <li>- "Laurea Magistrale" LM-63 Public Administration</li> <li>- "Laurea Magistrale" LM-76 Environmental and cultural economics</li> <li>- "Laurea Magistrale" LM-77 Management</li> <li>- "Laurea Magistrale" LM-81 Development co-operation</li> <li>- "Laurea Magistrale" LM-82 Statistics</li> <li>- "Laurea Magistrale" LM-83 Actuarial, Financial and Economic Statistics</li> <li>- "Laurea Magistrale" LM-90 European studies</li> </ul> <p>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</p> <ul style="list-style-type: none"> <li>- Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program</li> </ul> <p>Undergraduates can also apply for admission to the selection, with the obligation to obtain the degree within the deadline set for enrollment, that is <b>by 21.12.2022</b></p>
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<b>POSITIONS PUT OUT TO COMPETITION</b>		<b>5</b>	With Scholarship	<b>5</b>
<b>Position with Scholarship</b>				
<b>N°</b>	<b>Funding entity</b>		<b>Research Topic, if any</b>	
<b>2</b>	Scholarship funded by University of Parma (Ministerial funds)		---	
<b>1</b>	Scholarship funded by University of Ferrara		---	
<b>Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)</b> <b>(Modified by Rector Decree n. 2098 of 22.11.2022)</b>				
During the Oral Exam, applicants may express and/or confirm their interest of being assigned a scholarship linked to a specific research topic. The Examination Board will evaluate their eligibility based on specific competences, experience and specific aptitudes of the applicants.				
<b>N°</b>	<b>Funding entity</b>		<b>BOUND RESEARCH TOPIC</b>	
<b>1</b>	PhD scholarship funded within the PNRR research program called "ON Foods - Research and innovation network on food and nutrition Sustainability, Safety and Security – Working ON Foods" related to the notice Extended partnerships Investment 1.3 creation of "Partnerships extended to universities, research centers, companies for the financing of basic research projects" - Notice 341 of 15/03/2022 - funded by the European Union – NextGenerationEU (Cup Code D93C22000890001)		<b>Retailers' policies to support sustainability</b> The research project intends to analyze the policies promoted by retailers aimed at fostering the development of sustainable and nutritionally healthy products. Specifically, with reference to the presidium of sustainability, the focus will be on the environmental and social dimensions. Regarding the assortment environmental impact, the analysis	

		<p>will mainly focus on food packaging, in terms of recovery, recycling, and use of materials. Contextually, the social field will be analyzed with reference to the policies undertaken by retailers toward supplier companies. As regards the nutrition area, the research will focus on deepening the supply of healthy products by distributors, who are called upon both to select store-brand products and to develop store-brand products.</p> <p><b>Scientific coordinators: Proff. Guido CRISTINI, Cristina ZERBINI</b></p>
<p>1</p>	<p>PhD scholarship funded within the PNRR research program called "ON Foods - Research and innovation network on food and nutrition Sustainability, Safety and Security – Working ON Foods" related to the notice Extended partnerships Investment 1.3 creation of "Partnerships extended to universities, research centers, companies for the financing of basic research projects" - Notice 341 of 15/03/2022 - funded by the European Union – NextGenerationEU (Cup Code D93C22000890001)</p> 	<p><b>The assessment of the sustainability and the governance structure of short food value chain</b></p> <p>The research project is developed within the framework of the activities envisaged in SPOKE1 of the ONFOODS project (Research and innovation network on food and nutrition Sustainability, Safety and Security). In detail, the research activities that will be developed during the PhD include: i) the definition of social accounting and reporting systems for sustainable food supply chains using specific analysis methodologies and indicators for measuring the sustainability of value chains and food environments such as Life Cycle Assessment, CHG protocol, Risk-Benefit Assessment, Local Multiplier3, FAO-SAFA; ii) the analysis of governance and organizational models (formal and informal) used to promote sustainable production practices along food value chains and fair access to food.</p> <p><b>Scientific coordinators: Proff. Filippo ARFINI, Maria Cecilia MANCINI</b></p>

<p><b>ADMISSION PROCEDURES</b></p>	<p><b>Assessment of QUALIFICATIONS:</b> up to 75 points (a minimum score of 50 points shall be required to be admitted to the Oral Exam) <b>ORAL EXAM:</b> up to 45 points <b>Minimum score for ELIGIBILITY:</b> 70/120</p>
<p><b>Foreign Language</b></p>	<p>Language the fluency of which shall be assessed during the Oral Exam: <b>ENGLISH</b>. The evaluation of the knowledge of this language will be oral and will consist in presenting a part of the research project in English.</p>
<p align="center"><b>CANDIDATES ADMITTED TO THE ORAL EXAM CAN TAKE IT EITHER IN PRESENCE OR REMOTELY IN AUDIO AND VIDEO TELECONFERENCE</b></p> <p align="center">(Applicants who intend to take the Oral Exam remotely must submit a formal request, using the form attached to the competition notice)</p>	
<p align="center"><b>THE INTERVIEW MAY BE HELD ALSO IN ENGLISH</b></p>	
<p align="center"><b>LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT</b></p>	
<p align="center"><b>MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION</b></p>	
<p><b>ANNEX A</b></p>	<p>(art. 5 of the Competition notice)</p>
<p><b>Identification Document</b></p>	<p>Scanned Copy of a valid identity document with photo (i.e. identity card, passport)</p>

<b>Curriculum Vitae et studiorum</b>	No specific CV format is required (see art. 4 of the Competition notice)	
<b>Abstract of degree thesis</b>	Abstract of the second cycle master's degree thesis. Undergraduate applicants must submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)	
<b>Qualifications</b>	<p><b>Certificates and academic transcript of records for both Bachelor' and Master' degrees</b> containing the following details for each degree held: (art. 4 of the Competition notice):            University that granted the degree - Type of degree (first cycle/second cycle/single cycle)            Name of the degree program - Date of graduation - Final mark - List of exams and corresponding scores (academic transcript of records) - Translation into Italian or English (only for degrees issued in languages other than Italian or English).</p>	
<b>Research Project</b>	<p>Written in Italian or in English, according to the format attached to the competition notice. It will have to focus on an original research topic (<b>unpublished, developed personally by the candidate. It should be noted that the Examination Board can use of IT tools useful for verifying the originality of the submitted Project</b>)  <u>It does not represent a constraint with respect to the following choice of the doctoral thesis, which will be assigned by the Academic Board.</u></p>	
<b>FURTHER QUALIFICATIONS THAT MAY BE ATTACHED TO THE APPLICATION, IF IN POSSESSION OF THE APPLICANT</b> (only qualifications attested by a document drawn up in Italian or in English)		
<b>Statement of Research interest</b>	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	
<b>Scientific Publications</b>	Articles and/or reviews in scientific journals with peer reviewing, abstracts of papers or posters presented at conventions or meetings	
<b>Other Academic qualifications</b>	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	
<b>Other experiences (training, work, research, teaching, etc.)</b>	<ul style="list-style-type: none"> <li>– Research activity (basic, applied, translational, etc.) carried out in any capacity, including when covered by research grant, and as a staff member of research units</li> <li>– Working activity</li> <li>– Professional and/or training internship</li> <li>– Language proficiency certificates</li> <li>– Periods of study abroad, outside the country of origin (e.g. Erasmus programme or other similar mobility programmes)</li> <li>– Other qualifications attesting the suitability of the applicants (scholarships, awards, etc.)</li> </ul> <p>Continuous and lasting experiences will be privileged - at least one semester - and will be evaluated only if they are recognized as functional to the acquisition of skills, experience and qualification within the research areas of the PhD course</p>	
<b>EVALUATION CRITERIA</b>		
<b>QUALIFICATION</b>	<b>EVALUTATION CRITERIA</b>	<b>POINTS</b>
<b>Graduation mark (Average of the exam marks for the candidate will attain the degree no later than 21 December 2022)</b>	Score related to the final mark or to the average of the exam marks for graduands.	<b>Up to 12 points</b>

<b>Other qualifications</b>	Qualified professional experiences (in the case of professional experiences, continuous and lasting ones will be privileged - at least one semester - and will be evaluated only if they are recognized as functional to the acquisition of skills, experience and qualification in the research areas covered by the specific doctoral course ); other academic qualifications (masters, advanced courses, at least two-monthly training courses provided by university-level training institutions or bodies); didactic, seminar or university training experiences.	<b>Up to 12 points</b>
<b>Scientific publications</b>	The assessment will be carried out with a view to accessing the PhD course and taking into account the degree of maturity required for the specific position. Only publications of which a copy has been included among the qualifications presented will be evaluated and not any publications cited exclusively in the curriculum and / or in the form of a list.	<b>Up to 6 points</b>
<b>Graduation thesis</b>	Congruence with the research topics of the PhD course and quality of the research methodology	<b>Up to 15 points</b>
<b>Research Project</b>	The project will be evaluated based on the scientific value, the originality of the proposal, the articulation, the feasibility of the proposal and the consistency with the themes of the doctorate.	<b>Up to 24 points</b>
<b>Statement of Research Interest</b>	The motivation and interest in attending the PhD course will be evaluated.	<b>Up to 6 points</b>
<b>ORAL EXAM</b>	<b>EVALUATION CRITERIA</b>	<b>POINTS</b>
The ORAL EXAM includes the presentation of the research project and is intend to assess the suitability of the applicant to pursue scientific research as well as the general knowledge of issues connected to the PhD course	<ul style="list-style-type: none"> <li>○ knowledge of the foreign language: max 10 points</li> <li>○ research project presentation: max 35 points</li> </ul>	<b>Up to 45 points</b>
<b>SCHEDULE OF THE ADMISSION EXAMS</b>		
<b>ORAL EXAM</b>	<b>DATE</b>	5 December 2022
	<b>TIME</b>	10:00 AM (Italian Time)
	<b>PLACE</b>	Department of Economics and Management Via J.F. Kennedy, 6 43125 PARMA - ITALY
<b>OTHER INFORMATION</b>	For foreign candidates, the admission examinations may be held in English at the candidate's choice.	

## PHYSICS




CYCLE

XXXVIII

<b>COORDINATOR</b>	Prof. Stefano CARRETTA email: <a href="mailto:stefano.carretta@unipr.it">stefano.carretta@unipr.it</a> Department of Mathematical, Physical and Computer Sciences
<b>DURATION</b>	3 years
<b>STARTING DATE OF THE PHD PROGRAM</b>	01/01/2023
<b>RESEARCH TOPICS</b> (The candidate <b>MUST mandatorily</b> indicate one research topic in the form ANNEX A and submit a RESEARCH PROJECT in the relevant field)	
<ul style="list-style-type: none"> <li>• Realistic modelling of molecular qubits (<i>Bound research topic</i>)</li> <li>• Characterization of molecular spins for quantum technologies by conventional and innovative magnetometric techniques (<i>Bound research topic</i>)</li> <li>• Controlling open quantum systems (<i>Bound research topic</i>)</li> </ul>	
<b>TRAINING OBJECTIVES</b>	
<p>The PhD in Physics, with a duration of 3 years, is established as a unifying element of the third-level University education in the Physics area. Besides their main commitment to the research activity, students are supposed to spend a substantial part of their training period in attending advanced courses as well as national and international schools. Students are encouraged to spend part of their time abroad, in order to participate in scientific collaborations in their fields of interest, and follow advanced courses in support of their research program. During the three years, teaching commitments are progressively reduced towards a full time engagement in the research activity. The evaluation of the training program is carried out - at the end of each year - through open seminars held by the students. The independent scientific research is expected to lead to publication of results in international, peer reviewed journals. The ultimate goal of the PhD in Physics is a highly specialized scientific training that opens professional carriers in academic institutions and research laboratories, either public or private. The PhD in Physics is divided into three areas corresponding to major groups of disciplines of Physical Sciences covered by the research activity of the Department of Mathematical, Physical and Computer Sciences: Condensed Matter and Materials Physics, Theoretical Physics, Biophysics and Applied Physics.</p>	
<b>ADMISSION REQUIREMENTS</b>	<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"> <li>– Laurea specialistica or Laurea magistrale (second cycle master's degree)</li> <li>– Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations);</li> <li>– Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program</li> </ul> <p>Undergraduates can also apply for admission to the selection, with the obligation to obtain the degree within the deadline set for enrollment, that is <b>by 21.12.2022</b></p>

<b>POSITIONS PUT OUT TO COMPETITION</b>	<b>3</b>	With Scholarship	<b>3</b>
<b>Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)</b>			
<p>During the Oral Exam, applicants may express and/or confirm their interest of being assigned a scholarship linked to a specific research topic. The Examination Board will evaluate their eligibility based on specific competences, experience and specific aptitudes of the applicants.</p>			
<b>N°</b>	<b>Funding entity</b>	<b>BOUND RESEARCH TOPIC</b>	



1	<p>PhD scholarship funded within the PNRR research program called "National Quantum Science and Technology Institute - NQSTI "Extended partnerships Investment 1.3 creation of " related to the notice Partnerships extended to universities, research centers, companies for the financing of basic research projects" - Notice 341 of 15/03/2022 - funded by the European Union – NextGenerationEU (Cup Code D93C22000940001)</p> 	Realistic modelling of molecular qubits
1	<p>PhD scholarship funded within the PNRR research program called "National Quantum Science and Technology Institute - NQSTI "Extended partnerships Investment 1.3 creation of " related to the notice Partnerships extended to universities, research centers, companies for the financing of basic research projects" - Notice 341 of 15/03/2022 - funded by the European Union – NextGenerationEU (Cup Code D93C22000940001)</p> 	Characterization of molecular spins for quantum technologies by conventional and innovative magnetometric techniques
1	<p>PhD scholarship funded within the PNRR research program called "National Quantum Science and Technology Institute - NQSTI "Extended partnerships Investment 1.3 creation of " related to the notice Partnerships extended to universities, research centers, companies for the financing of basic research projects" - Notice 341 of 15/03/2022 - funded by the European Union – NextGenerationEU (Cup Code D93C22000940001)</p> 	Controlling open quantum systems
<b>ADMISSION PROCEDURES</b>		<p><b>Assessment of QUALIFICATIONS:</b> up to 50 points (a minimum score of 20 points shall be required to be admitted to the Oral Exam) <b>ORAL EXAM:</b> up to 70 points <b>Minimum score for ELIGIBILITY:</b> 70/120</p>
<b>Foreign Language</b>	Language the fluency of which shall be assessed during the Oral Exam: <b>ENGLISH</b> .	
<p align="center"><b>APPLICANTS ADMITTED TO THE ORAL EXAM CAN TAKE IT EITHER IN PRESENCE OR REMOTELY IN AUDIO AND VIDEO TELECONFERENCE</b></p> <p align="center">(Applicants who intend to take the Oral Exam remotely must submit a formal request, using the form attached to the competition notice)</p>		
<p><b>THE INTERVIEW MAY BE HELD ALSO IN ENGLISH</b></p>		
<p><b>LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT</b></p>		
<p><b>MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION</b></p>		
<b>ANNEX A</b>	(art. 5 of the Competition notice)	
<b>Identification Document</b>	Scanned Copy of a valid identity document with photo (i.e. identity card, passport)	
<b>Curriculum Vitae et studiorum</b>	No specific CV format is required (see art. 4 of the Competition notice)	

<b>Abstract of degree thesis</b>	Abstract of the second cycle master's degree thesis. Undergraduate applicants must submit the draft of the thesis countersigned by their supervisor.	
<b>Qualifications</b>	<b>Certificates and academic transcript of records for both Bachelor' and Master' degrees</b> containing the following details for each degree held: (art. 4 of the Competition notice): University that granted the degree - Type of degree (first cycle/second cycle/single cycle) Name of the degree program - Date of graduation - Final mark - List of exams and corresponding scores (academic transcript of records) - Translation into Italian or English (only for degrees issued in languages other than Italian or English).	
<b>Research Project and Statement of Research interest</b>	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 <a href="http://smfi.unipr.it/it">http://smfi.unipr.it/it</a> It <u>does not represent a constraint with respect to the following choice of the doctoral thesis</u> , that shall be defined together with the supervisor and approved by the Academic Board.	
<b>FURTHER QUALIFICATIONS THAT MAY BE ATTACHED TO THE APPLICATION, IF IN POSSESSION OF THE APPLICANT</b> (only qualifications attested by a document drawn up in Italian or in English)		
<b>Other qualifications</b>	Any other document certifying the applicant's training and abilities. Publications, awards, presentations to scientific meeting, stages, fellowships, reference letters, etc	
<b>EVALUATION CRITERIA</b>		
<b>QUALIFICATION</b>	<b>EVALUTATION CRITERIA</b>	<b>POINTS</b>
<b>Curriculum Vitae et studiorum</b>	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.	<b>Up to 25 points</b>
<b>Graduation thesis</b>	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.	<b>Up to 5 points</b>
<b>Research Project and Statement of Research Interest</b>	The project will be evaluated in relation to its scientific value and originality. The motivation expressed by the candidate in relation to the themes of the research doctorate will be evaluated	<b>Up to 10 points</b>
<b>Other qualifications</b>	Publications, awards, presentations to scientific meeting, stages, fellowships, reference letters, etc	<b>Up to 10 points</b>
<b>ORAL EXAM</b>	<b>EVALUATION CRITERIA</b>	<b>POINTS</b>
The ORAL EXAM includes the presentation of the research project and is intend to assess the suitability of the applicant to pursue scientific research as well as the general knowledge of issues connected to the PhD course	<ul style="list-style-type: none"> <li>○ preparation on the issues related to the Master's degree thesis</li> <li>○ research project presentation</li> <li>○ general knowledge of issues connected to the PhD course</li> <li>○ knowledge of the foreign language</li> </ul>	<b>Up to 70 points</b>





### SCHEDULE OF THE ADMISSION EXAMS

<b>ORAL EXAM</b>	<b>DATE</b>	5 December 2022 (with possible extension in the following days)
	<b>TIME</b>	03:00 PM (Italian time) The schedule of oral examinations will appear at <a href="http://smfi.unipr.it/it">http://smfi.unipr.it/it</a>
	<b>PLACE</b>	Department of Mathematical, Physical and Computer Sciences PHYSICS BUILDING Parco Area delle Scienze, 7/A – Campus 43124 PARMA - ITALY
<b>OTHER INFORMATION</b>		<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 <a href="http://smfi.unipr.it/it">http://smfi.unipr.it/it</a></p> <p>In the application to participate in the competitive examination, the candidate must choose and specify one research topic. The candidate may indicate a second priority choice.</p> <p>For foreign candidates, the admission examinations may be held in English at the candidate's choice.</p>

<b>INDUSTRIAL ENGINEERING</b>	
<b>CYCLE</b>	<b>XXXVIII</b>
<b>COORDINATOR</b>	Prof. Gianni ROYER CARFAGNI email: <a href="mailto:gianni.royer@unipr.it">gianni.royer@unipr.it</a> Department of Engineering and Architecture
<b>DURATION</b>	3 years
<b>STARTING DATE OF THE PHD PROGRAM</b>	01/01/2023
<b>RESEARCH TOPICS</b> (The candidate <b>MUST mandatorily</b> indicate one research topic in the form ANNEX A and submit a RESEARCH PROJECT in the relevant field)	
<ul style="list-style-type: none"> <li>• Theoretical and applied mechanics, mechanics of materials and structures, material technology, machine design, measurements and diagnostics;</li> <li>• Economic, organizational, managerial, logistics, plants and legal aspects in the field of engineering;</li> <li>• Energy systems, thermo-fluid dynamics, fluid machinery, applied physics.</li> </ul>	
<b>TRAINING OBJECTIVES</b>	
<p>The Industrial Engineering PhD program aims at giving to the 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 realities by providing to the graduate student an additional tool to get into a scientific context, not just limited by national borders.</p>	
<b>ADMISSION REQUIREMENTS</b>	<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"> <li>– Laurea specialistica or Laurea magistrale (second cycle master's degree)</li> <li>– Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations);</li> <li>– Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program</li> </ul> <p>Undergraduates can also apply for admission to the selection, with the obligation to obtain the degree within the deadline set for enrollment, that is <b>by 21.12.2022</b></p>

<b>POSITIONS PUT OUT TO COMPETITION*</b> (Modified by Rector Decree n. 2098 of 22.11.2022)	<b>3</b>	With Scholarship	<b>3</b>
<b>Position with Scholarship</b>			
<b>N°</b>	<b>Funding entity</b>	<b>Research Topic, if any</b>	
<b>1</b>	Scholarship co-funded by Fondazione Cariparma	---	
<b>Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)</b> (Modified by Rector Decree n. 2098 of 22.11.2022)			

During the Oral Exam, applicants may express and/or confirm their interest of being assigned a scholarship linked to a specific research topic. The Examination Board will evaluate their eligibility based on specific competences, experience and specific aptitudes of the applicants.

N°	Funding entity	BOUND RESEARCH TOPIC
1	PhD scholarship funded within the PNRR research program called "Ecosystem for Sustainable Transition in Emilia-Romagna" related to the notice Innovation Ecosystems - Investment 1.5 "Creation and strengthening of "Innovation Ecosystems", construction of "territorial R&D leaders"" – Notice MUR 3277 of 30/12/2021 - funded by the European Union - NextGenerationEU (Cup Code D93C22000460001) 	Advanced measurement and analysis techniques for condition monitoring of complex systems
1	PhD scholarship funded within the PNRR research program called "Ecosystem for Sustainable Transition in Emilia-Romagna" related to the notice Innovation Ecosystems - Investment 1.5 "Creation and strengthening of "Innovation Ecosystems", construction of "territorial R&D leaders"" – Notice MUR 3277 of 30/12/2021 - funded by the European Union - NextGenerationEU (Cup Code D93C22000460001) 	Environmental, Social and Governance (ESG) responsible investing and finance: institutions, markets and tools

<b>ADMISSION PROCEDURES</b>	<b>Assessment of QUALIFICATIONS:</b> up to 70 points (a minimum score of 40 points shall be required to be admitted to the Oral Exam) <b>ORAL EXAM:</b> up to 50 points <b>Minimum score for ELIGIBILITY:</b> 70/120
<b>Foreign Language</b>	Lingua di cui verrà accertata la conoscenza in sede di Prova Orale: <b>INGLESE</b> . La verifica della conoscenza di tale lingua avverrà in forma scritta/orale e consisterà nella lettura e traduzione di un testo scientifico.
<p align="center"><b>CANDIDATES ADMITTED TO THE ORAL TEST CAN TAKE THE EXAM IN PRESENCE OR REMOTELY IN AUDIO AND VIDEO TELECONFERENCE</b></p> <p align="center">(The Oral Exam takes place <u>in presence</u>. Candidates who intend to take the Oral Exam remotely must submit a <b>motivated REQUEST</b>, to this purpose, as per the model attached to the competition notice)</p>	
<b>THE INTERVIEW MAY BE HELD ALSO IN ENGLISH</b>	
<p align="center"><b>LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT</b></p>	
<b>MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION</b>	
<b>ANNEX A</b>	(art. 5 of the Competition notice)
<b>Identification Document</b>	Scanned Copy of a valid identity document with photo (i.e. identity card, passport)
<b>Curriculum Vitae et studiorum</b>	No specific CV format is required (see art. 4 of the Competition notice)
<b>Abstract of degree thesis</b>	Abstract of the second cycle master's degree thesis. Undergraduate applicants must submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)

<b>Qualifications</b>	<b>Certificates and academic transcript of records for both Bachelor' and Master' degrees</b> containing the following details for each degree held: (art. 4 of the Competition notice): University that granted the degree - Type of degree (first cycle/second cycle/single cycle) Name of the degree program - Date of graduation - Final mark - List of exams and corresponding scores (academic transcript of records) - Translation into Italian or English (only for degrees issued in languages other than Italian or English).	
<b>Research Project</b>	Written in Italian or in English, according to the format attached to the competition notice, it will have to focus on an original research topic ( <b>unpublished, developed personally by the candidate. It should be noted that the Examination Board can use of IT tools useful for verifying the originality of the submitted Project</b> ). To identify the topic of the aforementioned project, the candidate may contact one of the Members of the Academic Board (available at: <a href="https://dia.unipr.it/it/node/2834">https://dia.unipr.it/it/node/2834</a> ). <u>It does not represent a constraint with respect to the following choice of the doctoral thesis, which will be assigned by the Academic Board.</u>	
<b>FURTHER QUALIFICATIONS THAT MAY BE ATTACHED TO THE APPLICATION, IF IN POSSESSION OF THE APPLICANT</b> (only qualifications attested by a document drawn up in Italian or in English)		
<b>Statement of Research interest</b>	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	
<b>Scientific Publications</b>	Articles on national and international journals, contributions presented at conferences or symposia, book chapters. It is necessary to attach a copy to online application	
<b>Reference Letters</b>	A maximum of 2 written by professors or researchers at the University of origin of the candidate or from other universities or from experts in the research areas working in public or private research facilities (to be attached to the online application)	
<b>Other Academic qualifications</b>	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	
<b>Other experiences (training, work, research, teaching, etc.)</b>	<ul style="list-style-type: none"> <li>– Research activity (basic, applied, translational, etc.) carried out in any capacity, including when covered by research grant, and as a staff member of research units</li> <li>– Working activity</li> <li>– Professional and/or training internship</li> <li>– Language proficiency certificates</li> <li>– Periods of study abroad, outside the country of origin (e.g. Erasmus programme or other similar mobility programmes)</li> <li>– Other qualifications attesting the suitability of the applicants (scholarships, awards, etc.)</li> </ul>	
<b>EVALUATION CRITERIA</b>		
<b>QUALIFICATION</b>	<b>EVALUTATION CRITERIA</b>	<b>POINTS</b>
<b>Curriculum Vitae et studiorum</b>	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, both of the bachelor's and master's degrees.	<b>Up to 15 points</b>
<b>Graduation mark</b>	Score related to the final mark: - 110 with honours (magna cum laude): 10 points; - 110: 8 points; - From 105 to 109: up to 6 points; - From 100 to 104: up to 3 points; - From 66 to 99: 0 points - The scores will be proportionally renormalized in case of equivalent evaluations	<b>Up to 10 points</b>

<b>Average of the exam marks</b> (if the candidate will attain the degree no later than 21 December 2022)	Score related to the average of the exam marks: - 30/30: 10 points; - From 28/30 to 29/30: up to 5 points; - From 26/30 to 27/30: up to 3 points; - From 18/30 to 25/30: 0 points; The scores will be proportionally renormalized in case of equivalent evaluations	<b>Up to 10 points</b>
<b>Graduation thesis</b>	Consistency of the Master's Degree thesis with the doctoral program research topics	<b>Up to 10 points</b>
<b>Research Project</b>	Consistency of the Research Project with the doctoral program research topics	<b>Up to 15 points</b>
<b>Statement of Research Interest</b>	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.	<b>Up to 5 points</b>
<b>Scientific publications</b>	Articles on national and international journals, contributions presented at conferences or symposia, book chapters. It is necessary to attach a copy to online application	<b>Up to 5 points</b>
<b>Reference Letters</b>	a maximum of 2 written by professors or researchers at the University of origin of the candidate or from other universities or from experts in the research areas working in public or private research facilities	<b>Up to 5 points</b>
<b>Other Academic qualifications</b>	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	<b>Up to 2 points</b>
<b>Other experiences</b>	<ul style="list-style-type: none"> <li>– Research activity (basic, applied, translational, etc.) carried out in any capacity, including when covered by research grant, and as a staff member of research units</li> <li>– Working activity</li> <li>– Professional and/or training internship</li> <li>– Language proficiency certificates</li> <li>– Periods of study abroad, outside the country of origin (e.g. Erasmus programme or other similar mobility programmes)</li> <li>– Other qualifications attesting the suitability of the applicants (scholarships, awards, etc.)</li> </ul>	<b>Up to 3 points</b>
<b>ORAL EXAM</b>	<b>EVALUATION CRITERIA</b>	<b>POINTS</b>
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"> <li>○ research project presentation</li> <li>○ general knowledge of issues connected to the PhD course</li> <li>○ knowledge of foreign languages</li> </ul>	<b>Up to 50 points</b>
<b>SCHEDULE OF THE ADMISSION EXAMS</b>		
<b>ORAL EXAM</b>	<b>DATE</b>	5 December 2022 (with possible extension in the following days)
	<b>TIME</b>	09:00 AM (Italian Time)

	<b>PLACE</b>	Meeting Room – Building 10 Department of Engineering and Architecture Parco Area delle Scienze, 181/A - Campus 43124 PARMA - ITALY
<b>OTHER INFORMATION</b>		For foreign candidates, the admission examinations may be held in English at the candidate's choice.



## NEUROSCIENCES

<b>CYCLE</b>	<b>XXXVIII</b>
<b>COORDINATOR</b>	Prof. Luca BONINI email: <a href="mailto:luca.bonini@unipr.it">luca.bonini@unipr.it</a> Department of Medicine and Surgery
<b>DURATION</b>	3 years
<b>STARTING DATE OF THE PHD PROGRAM</b>	01/01/2023
<b>CURRICULUM</b>	1. Neurosciences
<b>RESEARCH TOPICS</b> (The candidate <b>MUST mandatorily</b> indicate one research topic in the form ANNEX A and submit a RESEARCH PROJECT in the relevant field)	
<ul style="list-style-type: none"> <li><b>Integrated neuroscience:</b> comparative neurophysiology and neuroethology, cognitive and social neuroscience, cognitive psychology, psychology of perception and action, psychobiology, psychophysiology.</li> </ul>	
<b>TRAINING OBJECTIVES</b>	
<ul style="list-style-type: none"> <li>Provide a global and interdisciplinary vision of the proposed research sectors, guaranteeing a high degree of specialization in research in these areas;</li> <li>Acquire skills and abilities in the autonomous use of at least one neuroscientific investigation technique;</li> <li>Promote the development of networks of national and international relations and exchanges aimed at sharing and deepening the research topic addressed.</li> </ul>	
<b>ADMISSION REQUIREMENTS</b>	<p>Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply:</p> <ul style="list-style-type: none"> <li>– Laurea specialistica or Laurea magistrale (second cycle master's degree)</li> <li>– Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations);</li> <li>– Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program</li> </ul> <p>Undergraduates can also apply for admission to the selection, with the obligation to obtain the degree within the deadline set for enrollment, that is <b>by 21.12.2022</b></p>

<b>POSITIONS PUT OUT TO COMPETITION</b>	<b>2</b>	With Scholarship	<b>2</b>
<b>Position with Scholarship</b>			
<b>N°</b>	<b>Funding entity</b>	<b>Research Topic, if any</b>	
<b>1</b>	Scholarship funded by University of Parma (University funds)	---	
<b>Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)</b>			
<p>During the Oral Exam, applicants may express and/or confirm their interest of being assigned a scholarship linked to a specific research topic. The Examination Board will evaluate their eligibility based on specific competences, experience and specific aptitudes of the applicants.</p>			

N°	Funding entity	BOUND RESEARCH TOPIC
1	<p>PhD scholarship funded within the PNRR research program called "MNESYS - A multiscale integrated approach to the study of the nervous system in health and disease" related to the notice Extended partnerships Investment 1.3 creation of "Partnerships extended to universities, research centers, companies for the financing of basic research projects" - Notice 341 of 15/03/2022 - funded by the European Union – NextGenerationEU (Cup Code D93C22000930002)</p> 	Stress, autonomic nervous system and cortisol

<b>ADMISSION PROCEDURES</b>	<p><b>Assessment of QUALIFICATIONS:</b> up to 40 points (a minimum score of 20 points must be obtained to be admitted to the Oral Exam) <b>ORAL EXAM:</b> up to 80 points <b>Minimum score for ELIGIBILITY:</b> 70/120</p>
<b>Foreign Language</b>	<p>During the Oral Exam it will be verified the proficiency in the following language: <b>ENGLISH</b>. The evaluation of this language will be oral and will consist in the discussion of the research project presented in English.</p>
<p align="center"><b>APPLICANTS ADMITTED TO THE ORAL EXAM WILL TAKE THE EXAM IN PRESENCE*</b></p> <p>*The Oral Exam can be taken in remote mode with audio and video connection only for candidates residing abroad or temporarily abroad for study / work reasons who submit a motivated request as per the model attached to the competition announcement.</p> <p>It is also possible to ask for the remote examination for those in isolation/quarantine for COVID-19 virus infection, at the moment of the exam, by submitting a <b>motivated REQUEST</b> as per the model attached to the competition announcement)</p>	
<p><b>THE INTERVIEW MAY BE HELD ALSO IN ENGLISH</b></p>	
<p><b>LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT</b></p>	
<p><b>MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION</b></p>	
<b>ANNEX A</b>	(art. 5 of the Competition notice)
<b>Identification Document</b>	Scanned Copy of a valid identity document with photo (i.e. identity card, passport)
<b>Curriculum Vitae et studiorum</b>	No specific CV format is required (see art. 4 of the Competition notice)
<b>Abstract of degree thesis</b>	Abstract of the second cycle master's degree thesis and the full thesis in pdf format. Undergraduate applicants must submit the draft of the thesis approved by their supervisor.
<b>Academic qualifications</b>	<p><b>Certificates and academic transcript of records for both Bachelor' and Master' degrees</b> containing the following details for each degree held: (art. 4 of the Competition notice): University that granted the degree - Type of degree (first cycle/second cycle/single cycle) Name of the degree program - Date of graduation - Final mark - List of exams and corresponding scores (academic transcript of records) - Translation into Italian or English (only for degrees issued in languages other than Italian or English).</p>
<b>Research Project</b>	Written in English, 3 pages with single spacing in Times New Roman 12, including bibliography, it must focusing on an original research topic ( <b>unpublished, developed personally by the candidate. It should be noted that the Examination Board can use of IT</b>

	<p><b>tools useful for verifying the originality of the submitted Project)</b> and it shall be structured as follows: introduction of the problem in the scientific context, relevance of the problem, objectives, expected results.</p> <p><u>It does not represent a constraint with respect to the following choice of the doctoral thesis, which will be assigned by the Academic Board.</u></p>	
<p><b>FURTHER QUALIFICATIONS THAT MAY BE ATTACHED TO THE APPLICATION, IF IN POSSESSION OF THE APPLICANT</b> (only qualifications attested by a document drawn up in Italian or in English)</p>		
<b>Statement of Research interest</b>	Short text – maximum 1 page – in English, aimed at explaining the candidate's motivation to attend the PhD program and at describing her/his specific research interests	
<b>Scientific Publications</b>	Articles on national and international journals with peer reviewing, abstracts of papers presented at conferences or symposia, book chapters etc.	
<b>Other Academic qualifications</b>	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	
<b>Other experiences (training, work, research, teaching, etc.) related to the topic of PhD course</b>	<ul style="list-style-type: none"> <li>– Research activity (basic, applied, translational, etc.) carried out in any capacity, including when covered by research grant, and as a staff member of research units</li> <li>– Working activity</li> <li>– Professional and/or training internship</li> <li>– Language proficiency certificates</li> <li>– Periods of study abroad, outside the country of origin (e.g. Erasmus programme or other similar mobility programmes)</li> <li>– Other qualifications attesting the suitability of the applicants (scholarships, awards, etc.)</li> </ul>	
<b>EVALUATION CRITERIA</b>		
<b>QUALIFICATION</b>	<b>EVALUTATION CRITERIA</b>	<b>POINTS</b>
<b>Curriculum Vitae et studiorum</b>	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.	<b>Up to 40 points</b>
<b>Curriculum Vitae et Studiorum will be evaluated based on the following qualifications and scores:</b>		
<b>Graduation mark</b>	Score related to the final mark: <ul style="list-style-type: none"> <li>- 110 with honours (magna cum laude): 10 points;</li> <li>- 110: 7 points</li> <li>- From 108 to 109: 5 points</li> <li>- From 106 to 107: 3 points</li> <li>- 104-105: 1 point</li> <li>- Under 104: 0 points</li> </ul>	<b>Up to 10 points</b>
<b>Average of the exam marks</b> (if the candidate will attain the degree no later than 21 December 2022)	Score related to the average of the exam marks: <ul style="list-style-type: none"> <li>- From 29/30 to 30/30: 10 points</li> <li>- From 28/30 to 28.99/30: 7 points</li> <li>- From 27/30 to 27.99/30: 5 points</li> <li>- From 26/30 to 26.99/30: 3 points</li> <li>- Under 26/30: 0 points</li> </ul>	<b>Up to 10 points</b>
<b>Graduation thesis</b>	Congruence with the research topics of the PhD course and methodological quality of the experimental or bibliographic work. <ul style="list-style-type: none"> <li>○ Experimental thesis related to the PhD program of Neuroscience: 10 points</li> <li>○ Non-experimental and relevant thesis: 5 points</li> <li>○ Thesis not relevant: 0 points</li> </ul>	<b>Up to 10 points</b>

<b>Research Project</b>	<p>Project evaluation score:</p> <ul style="list-style-type: none"> <li>○ scientific value: 2.5 points</li> <li>○ structure of the proposal: 2.5 points</li> <li>○ proposal feasibility in relation to the specific research topics of the PhD course: 2.5 points</li> <li>○ originality of the proposal: 2.5 points</li> </ul>	<b>Up to 10 points</b>
<b>Statement of Research Interest</b>	Short text – maximum 1 page – in Italian or in English	<b>Up to 2 points</b>
<b>Scientific publications</b>	<ul style="list-style-type: none"> <li>○ Each article in a peer-reviewed international journal: 1 point</li> <li>○ Each book chapter: 0.4 points</li> <li>○ abstracts/papers/posters presented at conferences or symposia: 0.3 points</li> </ul> <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>	<b>Up to 5 points</b>
<b>Other Academic qualifications</b>	Other academic qualifications consistent with the research topics of this PhD program	<b>Up to 3 points</b>
<b>ORAL EXAM</b>	<b>EVALUATION CRITERIA</b>	<b>POINTS</b>

<p>The ORAL examination includes:</p> <p><b>A) the oral report on 2 topics chosen by lot from those indicated in the list below:</b></p> <ol style="list-style-type: none"> <li>1) The origin of the nervous impulses</li> <li>2) The synapses</li> <li>3) The reflexes</li> <li>4) Molecular and cellular bases of signal transduction</li> <li>5) The motor system</li> <li>6) The visual system</li> <li>7) The somatosensory system</li> <li>8) The autonomic nervous system</li> <li>9) Neurobiology of language</li> <li>10) Neurobiology of attention</li> <li>11) Neurobiology of emotions</li> <li>12) Memory and learning</li> </ol> <p><b>B) The presentation and discussion of the research project,</b> aimed at verifying the candidate's aptitude for scientific research. The discussion will take in English to evaluate the knowledge and the fluency of the language</p>	<ul style="list-style-type: none"> <li>○ Up to 40 points for the oral report on the two topics extracted (up to 20 points per topic)</li> <li>○ Up to 20 points for the project presentation</li> <li>○ Up to 20 points for knowledge of the foreign language</li> </ul>	<p><b>Up to 80 points</b></p>
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**SCHEDULE OF THE ADMISSION EXAMS**

<b>ORAL EXAM</b>	<b>DATE</b>	5 December
	<b>TIME</b>	09:00 AM (Italian Time)
	<b>PLACE</b>	Department of Medicine and Surgery Neuroscience Unit - Building E - 1 <sup>st</sup> Floor Via Voltorno, 39 - 43125 PARMA - ITALY
<b>OTHER INFORMATION</b>		For foreign candidates, the admission examinations may be held in English at the candidate's choice.





## MATERIALS SCIENCE AND TECHNOLOGY

CYCLE	XXXVIII
COORDINATOR	Prof. Enrico DALCANALE email: <a href="mailto:enrico.dalcanale@unipr.it">enrico.dalcanale@unipr.it</a> Department of Chemistry, Life Sciences and Environmental Sustainability
DURATION	3 years
STARTING DATE OF THE PHD PROGRAM	01/01/2023
PARTNER INSTITUTION	The Italian National Research Council (C.N.R.)
<b>RESEARCH TOPICS</b> (The candidate <b>MUST mandatorily</b> indicate one research topic in the form ANNEX A)	
<ul style="list-style-type: none"> <li>• Photovoltaic devices</li> <li>• Functional materials</li> <li>• Nanodiagnostics</li> <li>• Nanostructured materials</li> <li>• Supramolecular sensors and devices</li> <li>• Semiconductive massive crystals</li> <li>• Low dimensionality semiconductive structures</li> <li>• Self-healing and self-diagnostic polymers</li> <li>• Ceramic and composite materials</li> <li>• Magnetic materials and magneto-refrigeration</li> </ul>	
<b>TRAINING OBJECTIVES</b>	
<p>The PhD program in Materials Science aims at the preparation of PhDs equipped with strong scientific background and wide research experience in materials science. Enrollment is open to MS laureates in Materials Science, Chemistry, Physics, Industrial Chemistry, Engineering and Biological Sciences. The Board provides a wide range of courses and seminars in different scientific areas, with particular focus on all aspects of materials science (synthesis, characterization, functions and devices). It also offers soft skills courses. The PhD program offers an interdisciplinary preparation through research activity, also in collaboration with foreign Institutions.</p>	
<b>ADMISSION REQUIREMENTS</b>	<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"> <li>– Laurea specialistica or Laurea magistrale (second cycle master's degree)</li> <li>– Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations);</li> <li>– Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program</li> </ul> <p>Undergraduates can also apply for admission to the selection, with the obligation to obtain the degree within the deadline set for enrollment, that is <b>by 21.12.2022</b></p>

<b>POSITION PUT OUT TO COMPETITION*</b> (Modified by Rector Decree n. 2098 of 22.11.2022)	<b>4</b>	With Scholarship	<b>4</b>
		Reserved to holders of scholarship within specific international mobility programs	<b>1</b>
<b>Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)</b> (Modified by Rector Decree n. 2098 of 22.11.2022)			



During the Oral Exam, applicants may express and/or confirm their interest of being assigned a scholarship linked to a specific research topic. The Examination Board will evaluate their eligibility based on specific competences, experience and specific aptitudes of the applicants.

N°	Funding entity	BOUND RESEARCH TOPIC
1	PhD scholarship funded within the PNRR research program called "Ecosystem for Sustainable Transition in Emilia-Romagna" related to the notice Innovation Ecosystems - Investment 1.5 "Creation and strengthening of "Innovation Ecosystems", construction of "territorial R&D leaders"" – Notice MUR 3277 of 30/12/2021 - funded by the European Union - NextGenerationEU (Cup Code D93C22000460001)  	Multiscale modeling of molecular functional materials towards optimized organic light emitting diodes (OLED).
1	PhD scholarship funded within the PNRR research program called "Ecosystem for Sustainable Transition in Emilia-Romagna" related to the notice Innovation Ecosystems - Investment 1.5 "Creation and strengthening of "Innovation Ecosystems", construction of "territorial R&D leaders"" – Notice MUR 3277 of 30/12/2021 - funded by the European Union - NextGenerationEU (Cup Code D93C22000460001)  	Multiscale modeling of Multifunctional molecular materials: chiral emitters for OLED and microscopy applications
1	PhD scholarship funded within the PNRR research program called "National Quantum Science and Technology Institute - NQSTI "Extended partnerships Investment 1.3 creation of " related to the notice Partnerships extended to universities, research centers, companies for the financing of basic research projects" - Notice MUR 341 of 15/03/2022 - funded by the European Union – NextGenerationEU (Cup Code D93C22000940001)  	Molecular systems for quantum technologies: relaxation, decoherence, spin and chirality.
1	PhD scholarship funded within the PNRR research program called "National Center for Gene Therapy and Drugs based on RNA Technology". - CN00000041 - Investment 1.4 "Enhancement of Research Facilities and the Creation of R&D "National Champions" on Certain Key Enabling Technologies" – Directorial Decree MUR Prot. n. 1035 del 17/06/2022 funded by the European Union – NextGenerationEU - (Cup Code B83C22002860006)  	Novel nano-platform for the delivery of nucleic acids and cell therapy

**Reserved to HOLDERS OF SCHOLARSHIP WITHIN SPECIFIC INTERNATIONAL MOBILITY PROGRAMS**

N°	Agreements/Cooperations/Mobility Programs
1	Reserved to holders under the PROJECT UE H2020 MSCA-ITN-ETN "NanED" project 956099 ( <i>Supervisor: Dr. Mauro Gemmi</i> )

<b>ADMISSION PROCEDURES</b>	<p><b>Assessment of QUALIFICATIONS:</b> up to 60 points (a minimum score of 30 points shall be required to be admitted to the Oral Exam)</p> <p><b>ORAL EXAM:</b> up to 60 points</p> <p><b>Minimum score for ELIGIBILITY:</b> 70/120</p>
<b>ADMISSION PROCEDURES for positions reserved to holders of scholarship holders within specific international mobility programs</b>	<p><b>Assessment of QUALIFICATIONS:</b> up to 120 points</p> <p><b>Minimum score for ELIGIBILITY:</b> 70/120</p>
<b>Foreign Language</b>	<p>Language the fluency of which shall be assessed during the Oral Exam: <b>ENGLISH</b>.</p> <p>The evaluation of the knowledge of this language will be oral and will consist in translating of a scientific text.</p>
<p><b>CANDIDATES ADMITTED TO THE ORAL EXAM CAN TAKE IT EITHER IN PRESENCE OR REMOTELY IN AUDIO AND VIDEO TELECONFERENCE</b></p> <p>(Applicants who intend to take the Oral Exam remotely must submit a formal request, using the form attached to the competition notice)</p>	
<p><b>THE INTERVIEW MAY BE HELD ALSO IN ENGLISH</b></p>	
<p><b>LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT</b></p>	
<p><b>MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION</b></p>	
<b>ANNEX A</b>	(art. 5 of the Competition notice)
<b>Identification Document</b>	Scanned Copy of a valid identity document with photo (i.e. identity card, passport)
<b>Curriculum Vitae et studiorum</b>	No specific CV format is required (see art. 4 of the Competition notice)
<b>Abstract of degree thesis</b>	Abstract of the second cycle master's degree thesis. Undergraduate applicants must submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)
<b>Qualifications</b>	<p><b>Certificates and academic transcript of records for both Bachelor' and Master' degrees</b> containing the following details for each degree held: (art. 4 of the Competition notice): University that granted the degree - Type of degree (first cycle/second cycle/single cycle) Name of the degree program - Date of graduation - Final mark - List of exams and corresponding scores (academic transcript of records) - Translation into Italian or English (only for degrees issued in languages other than Italian or English).</p>
<p><b>FURTHER QUALIFICATIONS THAT MAY BE ATTACHED TO THE APPLICATION, IF IN POSSESSION OF THE APPLICANT</b> (only qualifications attested by a document drawn up in Italian or in English)</p>	
<b>Statement of Research interest</b>	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 her/his specific research interests
<b>Scientific Publications</b>	Articles and/or reviews in scientific journals with peer reviewing, abstracts of papers or posters presented at conventions or meetings
<b>Final mark of graduation</b>	
<b>Average of the exam marks</b>	(for candidates enrolled under conditions and who graduate by 21.12.2022)
<p><b>EVALUATION CRITERIA</b></p>	

QUALIFICATION	EVALUTATION CRITERIA	POINTS
<b>Curriculum Vitae et studiorum</b>	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.	<b>Up to 20 points</b>
<b>Graduation mark</b>	Score related to the final mark: - 110 with honors (magna cum laude): 20 points - 110: 16 points - From 105 to 109: 12 points - From 100 to 104: 8 points - From 95 to 99: 4 points - Under 95: 0 points	<b>Up to 20 points</b>
<b>Average of the exam marks</b> (if the candidate will attain the degree no later than 21 December 2022)	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	<b>Up to 20 points</b>
<b>Graduation thesis</b>	Consistency of the Master's Degree thesis with the doctoral program research topics (briefly describe the topics in the curriculum vitae)	<b>Up to 10 points</b>
<b>Statement of Research Interest</b>	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	<b>Up to 5 points</b>
<b>Scientific publications</b>	Articles and/or reviews in scientific journals with peer reviewing, abstracts of papers or posters presented at conventions or meetings	<b>Up to 5 points</b>
ORAL EXAM	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"> <li>○ knowledge of foreign languages: 10 points</li> <li>○ general knowledge of issue connected to the Master's thesis: 25 points</li> <li>○ general knowledge of issues connected to the PhD course: 25 points</li> </ul>	<b>Up to 60 points</b>
<b>LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT</b> Positions reserved to holders of scholarship within specific international mobility programs		
<b>Curriculum Vitae et studiorum</b>	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	<b>Up to 50 points</b>

<b>Graduation mark</b>	Score related to the final mark: - 110 with honors (magna cum laude): 20 points - 110: 16 points - From 105 to 109: 12 points - From 100 to 104: 8 points - From 95 to 99: 4 points - Under 95: 0 points	<b>Up to 20 points</b>
<b>Graduation thesis</b>	Consistency of the Master's Degree thesis with the doctoral program research topics (briefly describe the topics in the curriculum vitae)	<b>Up to 30 points</b>
<b>Statement of Research Interest</b>	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	<b>Up to 10 points</b>
<b>Pubblicazioni scientifiche</b>	Articles and/or reviews in scientific journals with peer reviewing, abstracts of papers or posters presented at conventions or meetings	<b>Up to 10 points</b>

#### SCHEDULE OF THE ADMISSION EXAMS

<b>ORAL EXAM</b>	<b>DATE</b>	5 December 2022
	<b>TIME</b>	02:30 PM (Italian Time)
	<b>PLACE</b>	AULA C CHEMISTRY BUILDING Department of Chemistry, Life Sciences and Environmental Sustainability Parco Area delle Scienze, 17/A – Campus 43124 PARMA - ITALY
<b>OTHER INFORMATION</b>		For foreign candidates, the admission examinations may be held in English at the candidate's choice.


## FOOD SCIENCE

CYCLE	XXXVIII
COORDINATOR	Prof.ssa Chiara DALL'ASTA Food and Drug Department email: <a href="mailto:chiara.dallasta@unipr.it">chiara.dallasta@unipr.it</a>
DURATION	3 years
STARTING DATE OF THE PHD PROGRAM	01/01/2023
<b>RESEARCH TOPICS</b> (The candidate <b>MUST mandatorily</b> indicate one research topic in the form ANNEX A and submit a RESEARCH PROJECT in the relevant field)	
<ul style="list-style-type: none"> <li>• Untarget approaches for the assessment of food authenticity and safety</li> <li>• Identification, Assessment &amp; Mitigation of Selected Emerging Food Contaminants</li> <li>• Tailoring qualitative properties of foods by technology: use of innovative technologies for improving safety, quality and sustainability</li> <li>• Investigation of in vivo endogenous and/or exogenous production of phenolic metabolites using (un)targeted metabolomics</li> <li>• Evaluation, development and application of educational and empowerment models aimed at promoting healthy and sustainable diets.</li> <li>• Fertilizers from agrofood wastes to support a more sustainable agriculture</li> </ul>	
<b>TRAINING OBJECTIVES</b>	
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.	
<b>ADMISSION REQUIREMENTS</b>	<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"> <li>– Laurea specialistica or Laurea magistrale (second cycle master's degree)</li> <li>– Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations);</li> <li>– Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program</li> </ul> <p>Undergraduates can also apply for admission to the selection, with the obligation to obtain the degree within the deadline set for enrollment, that is <b>by 21.12.2022</b></p>

<b>POSITIONS PUT OUT TO COMPETITION</b>	<b>6</b>	With Scholarship	<b>6</b>
<b>Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)</b> <b>(Modified by Rector Decree n. 2098 of 22.11.2022)</b>			
During the Oral Exam, applicants may express and/or confirm their interest of being assigned a scholarship linked to a specific research topic. The Examination Board will evaluate their eligibility based on specific competences, experience and specific aptitudes of the applicants.			
<b>N°</b>	<b>Funding entity</b>	<b>BOUND RESEARCH TOPIC</b>	

1	<p>PhD scholarship funded within the PNRR research program called "ON Foods - Research and innovation network on food and nutrition Sustainability, Safety and Security – Working ON Foods" related to the notice Extended partnerships Investment 1.3 creation of "Partnerships extended to universities, research centers, companies for the financing of basic research projects" - Notice 341 of 15/03/2022 - funded by the European Union – NextGenerationEU (Cup Code D93C22000890001)</p> 	<p><b>Untarget approaches for the assessment of food authenticity and safety (VET04 – Food Hygiene)</b>          Metabolomics is an innovative frontier in food safety and quality research. The PhD project will provide insights on how this method can help determine the chemical hazards present in foods of animal origin. Furthermore, the method will be applied as a way to overcome the classical tests based on target chemistry which are nowadays used in order to control the presence of residues of veterinary drugs in foods.</p>
1	<p>PhD scholarship funded within the PNRR research program called "ON Foods - Research and innovation network on food and nutrition Sustainability, Safety and Security – Working ON Foods" related to the notice Extended partnerships Investment 1.3 creation of "Partnerships extended to universities, research centers, companies for the financing of basic research projects" - Notice 341 of 15/03/2022 - funded by the European Union – NextGenerationEU (Cup Code D93C22000890001)</p> 	<p><b>Identification, Assessment &amp; Mitigation of Selected Emerging Food Contaminants (CHIM10 – Food Chemistry)</b>          The project aims to combat emerging chemical hazards in food chains through the development of cutting-edge identification/assessment methodologies. Industrial case-studies will cover i.e. emerging natural toxins, unregulated process contaminants, and adulterants in the food production chain.</p>
1	<p>PhD scholarship funded within the PNRR research program called "ON Foods - Research and innovation network on food and nutrition Sustainability, Safety and Security – Working ON Foods" related to the notice Extended partnerships Investment 1.3 creation of "Partnerships extended to universities, research centers, companies for the financing of basic research projects" - Notice 341 of 15/03/2022 - funded by the European Union – NextGenerationEU (Cup Code D93C22000890001)</p> 	<p><b>Tailoring qualitative properties of foods by technology: use of innovative technologies for improving safety, quality and sustainability (AGR15 – Food Technology)</b>          The objective of this PhD program is to investigate and apply innovative technologies on different food categories for improving several qualitative aspects of foods (safety, sustainability as well as sensorial, technological, functional and nutritional).</p>
1	<p>PhD scholarship funded within the PNRR research program called "ON Foods - Research and innovation network on food and nutrition Sustainability, Safety and Security – Working ON Foods" related to the notice Extended partnerships Investment 1.3 creation of "Partnerships extended to universities, research centers, companies for the financing of basic research projects" - Notice 341 of 15/03/2022 - funded by the European Union – NextGenerationEU (Cup Code D93C22000890001)</p> 	<p><b>Investigation of in vivo endogenous and/or exogenous production of phenolic metabolites using (un)targeted metabolomics (MED49 – Human Nutrition)</b>          The aim of the project is to investigate the prevalence of endogenous phenolic metabolites in comparison to their exogenous production, using (un)targeted metabolomics.</p>
1	<p>PhD scholarship funded within the PNRR research program called "ON Foods - Research and innovation network on food and nutrition Sustainability, Safety and Security – Working ON Foods" related to the notice Extended partnerships Investment 1.3 creation of "Partnerships extended to universities, research centers, companies for the financing of basic research projects" - Notice 341 of 15/03/2022 - funded by the European Union – NextGenerationEU (Cup Code D93C22000890001)</p> 	<p><b>Evaluation, development and application of educational and empowerment models aimed at promoting healthy and sustainable diets (MED49 – Human Nutrition)</b>          The student will be required to participate in research related to the evaluation, development and application of educational and empowerment models aimed at promoting healthy and sustainable diets, in specific target populations. Such models will be developed with the support of advanced and</p>



		innovative technological tools and systems for the evaluation of user perceptions and with the involvement of key stakeholders in the field of the agri-food system.
1	<p>PhD scholarship funded within the PNRR research program called "National Research Centre for Agricultural Technologies" - Investment 1.4 "Enhancement of Research Facilities and the Creation of R&amp;D "National Champions" on Certain Key Enabling Technologies" – Notice MUR 3138 del 16/12/2021 - funded by the European Union – NextGenerationEU (Cup Code D93C22000420001)</p> 	<p><b>Fertilizers from agrofood wastes to support a more sustainable agriculture</b></p> <p>Using a multidisciplinary approach, the project is aimed at characterising different biochar categories obtained from agro-food wastes, and to evaluate their effects in term of quality and yield performance of selected crops.</p>

<b>ADMISSION PROCEDURES</b>	<p><b>Assessment of QUALIFICATIONS:</b> up to 30 points (a minimum score of 18 points shall be required to be admitted to the Oral Exam)</p> <p><b>ORAL EXAM:</b> up to 90 points</p> <p><b>Minimum score for ELIGIBILITY:</b> 70/120</p>
<b>Foreign Language</b>	<p>Language the fluency of which shall be assessed during the Oral Exam: <b>ENGLISH</b>.</p> <p>The evaluation of the knowledge of this language will be oral and will consist in reading and translating of a scientific test.</p> <p>For foreign candidates, basic knowledge of <b>ITALIAN LANGUAGE</b> will also be assessed.</p>
<p><b>APPLICANTS ADMITTED TO THE ORAL EXAM CAN TAKE IT EITHER IN PRESENCE OR REMOTELY IN AUDIO AND VIDEO TELECONFERENCE</b></p> <p>(Applicants who intend to take the Oral Exam remotely must submit a formal request, using the form attached to the competition notice)</p>	
<p><b>THE INTERVIEW MAY BE HELD ALSO IN ENGLISH</b></p>	
<p><b>LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT</b></p>	
<p><b>MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION</b></p>	
<b>ANNEX A</b>	(art. 5 of the Competition notice)
<b>Identification Document</b>	Scanned Copy of a valid identity document with photo (i.e. identity card, passport)
<b>Curriculum Vitae et studiorum</b>	No specific CV format is required (see art. 4 of the Competition notice)
<b>Abstract of degree thesis</b>	Abstract of the second cycle master's degree thesis. Undergraduate applicants must submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)
<b>Qualifications</b>	<p><b>Certificates and academic transcript of records for both Bachelor' and Master' degrees</b> containing the following details for each degree held: (art. 4 of the Competition notice):            University that granted the degree - Type of degree (first cycle/second cycle/single cycle)            Name of the degree program - Date of graduation - Final mark - List of exams and corresponding scores (academic transcript of records) - Translation into Italian or English (only for degrees issued in languages other than Italian or English).</p>

<b>Research Project</b>	The research project shall consist of a maximum of 2 pages, be written in Italian or in English, focused on an original research topic ( <b>unpublished, developed personally by the candidate. It should be noted that the Examination Board can use tools useful for verifying the originality of the submitted Project</b> ) concerning one of the specific topic indicated in this notice and it shall be structured as follows: introduction of the problem in the scientific context, significance of the problem, expected results, argumentation. <u>The research project 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.
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**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)

<b>Statement of Research interest</b>	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
<b>Scientific Publications</b>	Articles and/or reviews in scientific journals with peer reviewing, scientific book chapters with national or international circulation. The explicit indication of the candidate's contribution to the works presented for evaluation is a necessary requirement.
<b>Reference Letters</b>	Maximum no. 1 letter written by experts in the research areas working in public or private research institutions. It must be sent directly by the signatory to the e-mail address: <a href="mailto:foodsciencephd@unipr.it">foodsciencephd@unipr.it</a> The submission by the candidate himself will not be accepted.
<b>Other Academic qualifications</b>	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
<b>Other experiences (training, work, research, teaching, etc.)</b>	<ul style="list-style-type: none"> <li>– Language proficiency certificates</li> <li>– Periods of study abroad, outside the country of origin (e.g. Erasmus programme or other similar mobility programmes)</li> <li>– Other qualifications attesting the suitability of the applicants (scholarships, awards, etc.)</li> </ul>


**EVALUATION CRITERIA**

QUALIFICATION	EVALUTATION CRITERIA	POINTS
<b>Curriculum Vitae et studiorum</b>	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.  The marks of the exams and the graduation mark and the consistency of the Master's Degree thesis with the doctoral program research topics will be the most relevant element of the evaluation.	<b>Up to 22 points</b>
<b>Statement of Research Interest</b>	Originality and motivation to research	<b>Up to 2 points</b>
<b>Scientific publications</b>	International peer-reviewed papers: up to 2 points National peer-reviewed papers: up to 1 point Book chapters: up to 1 point	<b>Up to 3 points</b>
<b>Reference Letters</b>	Attestation of motivation and aptitude for the research	<b>Up to 2 points</b>
<b>Other Academic qualifications</b>	in subjects related to the research areas of the PhD course	<b>Up to 1 point</b>
<b>Other experiences</b>	Aptitude to research activity and congruence with the research topics and the objectives of the PhD course	<b>Up to 2 points</b>

**The Research Project will be evaluated during the Oral Exam**

ORAL EXAM		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"> <li>○ English reading and speaking and for foreign candidates also Italian language: up to 10 points</li> <li>○ research project presentation: max 50 points</li> <li>○ general knowledge of issues connected to the PhD course: max 30 points</li> </ul>	<b>Up to 90 points</b>
SCHEDULE OF THE ADMISSION EXAMS			
ORAL EXAM	<b>DATE</b>	5 December 2022	
	<b>TIME</b>	10:00 AM (Italian Time)	
	<b>PLACE</b>	Food and Drug Department Parco Area delle Scienze, 27/A – Campus 43124 PARMA - ITALY	
<b>OTHER INFORMATION</b>		For foreign candidates it is possible to carry out the admission examination exclusively in English, after checking the basic knowledge of ITALIAN LANGUAGE. For Italian candidates it will be possible to take the admission examination in Italian or in English at the candidate's choice.	

<b>JURIDICAL SCIENCES</b>	
<b>CYCLE</b>	<b>XXXVIII</b>
<b>COORDINATOR</b>	Prof. Fabio Salvatore CASSIBBA email: <a href="mailto:fabiosalvatore.cassibba@unipr.it">fabiosalvatore.cassibba@unipr.it</a> Department of Law, Politics and International Studies
<b>DURATION</b>	3 years
<b>STARTING DATE OF THE PHD PROGRAM</b>	01/01/2023
<b>PARTNER INSTITUTION</b>	University of Modena e Reggio Emilia
<b>RESEARCH TOPICS</b> (The candidate <b>MUST mandatorily</b> indicate one research topic in the form ANNEX A and submit a RESEARCH PROJECT in the relevant field)	
<ul style="list-style-type: none"> <li>• INTERNATIONAL LAW (IUS/13)</li> <li>• EUROPEAN UNION LAW (IUS/14)</li> </ul>	
<b>TRAINING OBJECTIVES</b>	
<p>The project of the doctoral course in Law Sciences is developed by a plurality of higher education activities, throughout the three-year period and divided into various types.</p> <p>First of all, the PhD program intends to enhance - from the first year - interdisciplinary / multidisciplinary / transdisciplinary activities, through the provision of various courses, concerning topics of general or transversal legal interest. The related courses (some delivered exclusively in English) will be held by 1st and 2nd level professors and by RTD-B researchers, as well as by experts from the various scientific disciplinary sectors involved, so as to favor the acquisition of skills and professionalism truly adequate for the objectives. training courses, on a methodological level, on that of reasoning and analysis in the legal field, of the in-depth knowledge required at the level of professional opportunities. In addition, the aim is improving the linguistic skills of doctoral students in the legal field. These didactic activities will take place - in particular although not exclusively - in the first year of the doctorate, in order to allow the PhD students, on one hand, to acquire a solid and interdisciplinary "initial" training, also on the methodological profiles and tools necessary for research ; on the other hand, to give them the opportunity in subsequent years to improve their skills in specific disciplinary sectors, also through periods of stay abroad, in view, then, of the drafting of the doctoral thesis. The PhD course also provides for strengthening the theoretical skills of the students through the conduct of lessons (also in a foreign language) on legal issues related to the individual scientific disciplinary sectors referable to "Area 12" /Law Science), held by 1st or 2nd level professors. o by RTD-B researchers Italian or foreign, as well as by experts in the field, including foreigners. Finally, the doctoral course intends to enrich the training of PhD students, encouraging their participation in conferences, study meetings, seminars (typically, although not exclusively, organized or sponsored by universities, including foreign ones, and by national or international research bodies), also abroad, which from time to time will be accredited as moments of common, interdisciplinary or sector teaching.</p>	
<b>ADMISSION REQUIREMENTS</b>	<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"> <li>– Laurea specialistica or Laurea magistrale (second cycle master's degree)</li> <li>– Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations);</li> <li>– Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program</li> </ul> <p>Undergraduates can also apply for admission to the selection, with the obligation to obtain the degree within the deadline set for enrollment, that is <b>by 21.12.2022</b></p>

<b>POSITIONS PUT OUT TO COMPETITION</b>	<b>1</b>	With Scholarship	<b>1</b>
<b>Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)</b>			
During the Oral Exam, applicants may express and/or confirm their interest of being assigned a scholarship linked to a specific research topic. The Examination Board will evaluate their eligibility based on specific competences, experience and specific aptitudes of the applicants.			
<b>N°</b>	<b>Funding entity</b>	<b>BOUND RESEARCH TOPIC</b>	
<b>1</b>	<p>PhD scholarship funded within the PNRR research program called "ON Foods - Research and innovation network on food and nutrition Sustainability, Safety and Security – Working ON Foods" related to the notice Extended partnerships Investment 1.3 creation of "Partnerships extended to universities, research centers, companies for the financing of basic research projects" - Notice 341 of 15/03/2022 - funded by the European Union – NextGenerationEU (Cup Code D93C22000890001)</p> 	<p>INTERNATIONAL LAW (IUS/13) EUROPEAN UNION LAW (IUS/14)</p> <p>The research project is related to the International Law and/or European Union Law principles and rules about food sustainability, with particular focus on: soil and water wasting, waste cycle, biodiversity and climate change.</p> <p>Key-words: fight against food wasting; integrated approach about sustainability and human rights</p>	

<b>ADMISSION PROCEDURES</b>	<p><b>Assessment of QUALIFICATIONS:</b> up to 70 points (a minimum score of 35 points shall be required to be admitted to the Oral Exam)</p> <p><b>ORAL EXAM:</b> up to 50 points</p> <p><b>Minimum score for ELIGIBILITY:</b> 70/120</p>
<b>Foreign Language</b>	<p>Language the fluency of which shall be assessed during the Oral Exam: <b>ENGLISH</b>.</p> <p>The evaluation of the knowledge of this language will be oral and will consist in translating of a scientific text etc.</p>
<b>CANDIDATES ADMITTED TO THE ORAL TEST CAN TAKE THE EXAM IN PRESENCE.</b>	
<p>The oral examination could be done by remote in case of Covid-19 Virus quarantine and in the case in which the candidate is out of the Region or out of Italy due to work/study reasons. The candidates who intend to attend the oral exam by remote shall present a justified request consistent to the form alleged to the competition notice. Even the Evaluation Board could attend the oral session by remote, due to celerity reasons.</p>	
<b>LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT</b>	
<b>MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION</b>	
<b>ANNEX A</b>	(art. 5 of the Competition notice)
<b>Identification Document</b>	Scanned Copy of a valid identity document with photo (i.e. identity card, passport)
<b>Curriculum Vitae et studiorum</b>	No specific CV format is required (see art. 4 of the Competition notice)
<b>Abstract of degree thesis</b>	Abstract of the second cycle master's degree thesis. Undergraduate applicants must submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)

<b>Qualifications</b>	<b>Certificates and academic transcript of records for both Bachelor' and Master' degrees</b> containing the following details for each degree held: (art. 4 of the Competition notice): University that granted the degree - Type of degree (first cycle/second cycle/single cycle) Name of the degree program - Date of graduation - Final mark - List of exams and corresponding scores (academic transcript of records) - Translation into Italian or English (only for degrees issued in languages other than Italian or English).	
<b>Research Project</b>	Written in Italian or in English, according to the format attached to the competition notice, it will have to focus on an original research topic ( <b>unpublished, developed personally by the candidate. It should be noted that the Examination Board can use of IT tools useful for verifying the originality of the submitted Project</b> ). <u>It does not represent a constraint with respect to the following choice of the doctoral thesis, which will be assigned by the Academic Board.</u>	
<b>FURTHER QUALIFICATIONS THAT MAY BE ATTACHED TO THE APPLICATION, IF IN POSSESSION OF THE APPLICANT</b> (only qualifications attested by a document drawn up in Italian or in English)		
<b>Scientific Publications</b>	Monographs, articles in scientific journals, chapters in collective volumes (uniquely referable to the candidate).	
<b>Other Academic qualifications</b>	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	
<b>Other experiences (training, work, research, teaching, etc.)</b>	<ul style="list-style-type: none"> <li>- Research activity (basic, applied, translational, etc.) carried out in any capacity, including when covered by research grant, and as a staff member of research units</li> <li>- Working activity</li> <li>- Professional and/or training internship</li> <li>- Language proficiency certificates</li> <li>- Periods of study abroad, outside the country of origin (e.g. Erasmus programme or other similar mobility programmes)</li> <li>- Other qualifications attesting the suitability of the applicants (scholarships, awards, etc.)</li> </ul>	
<b>EVALUATION CRITERIA</b>		
<b>QUALIFICATION</b>	<b>EVALUTATION CRITERIA</b>	<b>POINTS</b>
<b>Curriculum Vitae et studiorum</b>	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.	<b>Up to 33points</b>
<b>Graduation mark</b>	Score related to the final mark: - 110 with honours (magna cum laude): 5 points; - 110: 3 points	<b>Up to 5 points</b>
<b>Average of the exam marks</b> (if the candidate will attain the degree no later than 21 December 2022)	Score related to the average of the exam marks: - 30/30: 5 points - From 27/30 to 29/30: 3 points	<b>Up to 5 points</b>
<b>Graduation thesis</b>	Congruence with the research topics of the PhD course for the scientific disciplinary sectors available for competition	<b>Up to 2 points</b>
<b>Research Project</b>	Points relating to the research project: <ul style="list-style-type: none"> <li>o methodological rigor: max 10 points</li> <li>o originality: max 8 points</li> <li>o consistency with the topics of the scientific disciplinary sector of reference: max 2 points</li> </ul>	<b>Up to 20 points</b>



<b>Scientific publications</b>		<b>Up to 5 points</b>
<b>Other Academic qualifications</b>		<b>Up to 3 points</b>
<b>Other experiences</b>		<b>Up to 2 points</b>
<b>ORAL EXAM</b>	<b>EVALUATION CRITERIA</b>	<b>POINTS</b>
The ORAL EXAM includes the presentation of the research project and is intend to assess the suitability of the applicant to pursue scientific research as well as the general knowledge of issues connected to the PhD course	<ul style="list-style-type: none"> <li>○ presentation of the project: max 30 points</li> <li>○ preparation on the topics of the scientific disciplinary sector of reference for the project: max 20 points</li> </ul>	<b>Up to 50 points</b>
<b>SCHEDULE OF THE ADMISSION EXAMS</b>		
<b>ORAL EXAM</b>	<b>DATE</b>	6 December 2022 (with possible extension to 20 September 2022)
	<b>TIME</b>	01:00 PM (Italian Time)
	<b>PLACE</b>	"BANDIERA" CLASSROOM University of Parma - CENTRAL PALACE Via Università, 12 43121 PARMA - ITALY
<b>OTHER INFORMATION</b>	For foreign candidates it is possible to carry out the admission examination exclusively in English.	



<b>INFORMATION TECHNOLOGIES</b>	
<b>CYCLE</b>	<b>XXXVIII</b>
<b>COORDINATOR</b>	Prof. Marco LOCATELLI email: <a href="mailto:marco.locatelli@unipr.it">marco.locatelli@unipr.it</a> Department of Engineering and Architecture
<b>DURATION</b>	3 years
<b>STARTING DATE OF THE PHD PROGRAM</b>	01/01/2023
<b>RESEARCH TOPICS</b> (The candidate <b>MUST mandatorily</b> indicate one research topic in the form ANNEX A and submit a RESEARCH PROJECT in the relevant field)	
<ul style="list-style-type: none"> <li>• Electronics instrumentation and electrical drives</li> <li>• Computer systems and automatic control</li> <li>• Telecommunications and electromagnetic fields</li> </ul>	
<b>TRAINING OBJECTIVES</b>	
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.	
<b>ADMISSION REQUIREMENTS</b>	<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"> <li>– Laurea specialistica or Laurea magistrale (second cycle master's degree)</li> <li>– Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations);</li> <li>– Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program</li> </ul> <p>Undergraduates can also apply for admission to the selection, with the obligation to obtain the degree within the deadline set for enrollment, that is <b>by 21.12.2022</b></p>

<b>POSITIONS PUT OUT TO COMPETITION</b>	<b>2</b>	With Scholarship	<b>1</b>
		Reserved to holders of scholarship within specific international mobility programs	<b>1</b>
<b>Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)</b>			
During the Oral Exam, applicants may express and/or confirm their interest of being assigned a scholarship linked to a specific research topic. The Examination Board will evaluate their eligibility based on specific competences, experience and specific aptitudes of the applicants.			
<b>N°</b>	<b>Funding entity</b>	<b>BOUND RESEARCH TOPIC</b>	
<b>1</b>	Scholarship financed by the Department of Engineering and Architecture (funds Project HORIZON Europe n. 101080128 "Quantum Internet Alliance (QIA)")	Study and development of compilation and execution management services for distributed quantum computing	
<b>Reserved to HOLDERS OF SCHOLARSHIP WITHIN SPECIFIC INTERNATIONAL MOBILITY PROGRAMS</b>			
<b>N°</b>	<b>Agreements/Cooperations/Mobility Programs</b>		
<b>1</b>	Reserved to holders under the Agreement with INES-RUHENGERI, Institute of Applied Sciences, Ruhengeri, Rwanda		



<b>ADMISSION PROCEDURES</b>	<b>Assessment of QUALIFICATIONS:</b> up to 70 points (a minimum score of 30 points shall be required to be admitted to the Oral Exam) <b>ORAL EXAM:</b> up to 50 points <b>Minimum score for ELIGIBILITY:</b> 70/120
<b>Foreign Language</b>	Language the fluency of which shall be assessed during the Oral Exam: <b>ENGLISH</b> . The evaluation of the knowledge of this language will be oral and will consist of a brief interview on a technical topic (for example a translation of a scientific text).
<b>CANDIDATES ADMITTED TO THE ORAL TEXT CAN TAKE THE EXAM IN PRESENCE OR REMOTELY IN AUDIO AND VIDEO TELECONFERENCE</b>  (Candidates who intend to take the Oral Exam remotely must submit request, to this purpose, as per the model attached to the competition notice)	
<b>THE INTERVIEW MAY BE HELD ALSO IN ENGLISH</b>	
<b>LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT</b>	
<b>MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION</b>	
<b>ANNEX A</b>	(art. 5 of the Competition notice)
<b>Identification Document</b>	Scanned Copy of a valid identity document with photo (i.e. identity card, passport)
<b>Curriculum Vitae et studiorum</b>	No specific CV format is required (see art. 4 of the Competition notice)
<b>Abstract of degree thesis</b>	Abstract of the second cycle master's degree thesis. Undergraduate applicants must submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)
<b>Qualifications</b>	<b>Certificates and academic transcript of records for both Bachelor' and Master' degrees</b> containing the following details for each degree held: (art. 4 of the Competition notice): University that granted the degree - Type of degree (first cycle/second cycle/single cycle) Name of the degree program - Date of graduation - Final mark - List of exams and corresponding scores (academic transcript of records) - Translation into Italian or English (only for degrees issued in languages other than Italian or English).
<b>Research Project</b>	Max 10.000 characters, written in English, it will have to focus 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. However, this project must be prepared after having contacted and consulted one of the research groups related to the PhD course in Information Technologies (information on the research groups and their contacts can be found at <a href="https://dia.unipr.it/en/node/3080">https://dia.unipr.it/en/node/3080</a> ). <b>Failure to submit the project will result in exclusion from procedure for admission to the course.</b>
<b>FURTHER QUALIFICATIONS THAT MAY BE ATTACHED TO THE APPLICATION, IF IN POSSESSION OF THE APPLICANT</b> (only qualifications attested by a document drawn up in Italian or in English)	
<b>Scientific Publications</b>	Articles on national and international journals, papers presented at conferences or symposia, book chapters etc.
<b>Reference Letters</b>	Maximum 2 letters and must be sent directly by the signer to the address e-mail: <a href="mailto:marco.locatelli@unipr.it">marco.locatelli@unipr.it</a> (The candidate, therefore, must not upload them through the procedure of the competition online registration)



<b>Other experiences (training, work, research, teaching, etc.)</b>	<ul style="list-style-type: none"> <li>– <b>Periods of study abroad</b>, outside the country of origin (e.g., Erasmus programme or other similar mobility programmes)</li> <li>– <b>Other qualifications</b> attesting the suitability of the applicants (scholarships, awards, etc.)</li> </ul>	
EVALUATION CRITERIA		
QUALIFICATION	EVALUTATION CRITERIA	POINTS
<b>Curriculum Vitae et studiorum</b>	Evaluation of the marks of the exams and of the master's degree mark (if available). The candidate is required to provide the average of the marks of all the exams of the master's degree, in addition to the details of the same  It will also be evaluated the congruence of the degree obtained with the PhD themes.	<b>Up to 25 points</b>
<b>Abstract of the Master's degree thesis</b>	It will be evaluated the congruence of the Master's Degree thesis with the doctoral program research topics	<b>Up to 5 points</b>
<b>Research Project</b>	Points relating to the research project shall be allocated on the basis of the following criteria: <ul style="list-style-type: none"> <li>○ Scientific value and originality of the proposal: max 10 points</li> <li>○ description and structure of the proposal: max 10 points</li> <li>○ proposal feasibility: max 10 points</li> </ul>	<b>Up to 30 points</b>
<b>Scientific publications</b>	Evaluation of the editorial position of the publication and its impact on the scientific community on the basis of the available indicators. It will be evaluated only publications from the past five years.	<b>Up to 5 points</b>
<b>Reference Letters</b>	Evaluation of the judgments reported in the reference letters.	<b>Up to 2 points</b>
<b>Other experiences</b>	Duration evaluation (for scholarships and internships), score (for the GRE test), prestige (for awards)	<b>Up to 3 points</b>
ORAL EXAM	EVALUATION CRITERIA	POINTS
The ORAL EXAM includes the presentation of the research project and is intend to assess the suitability of the applicant to pursue scientific research as well as the general knowledge of issues connected to the PhD course	<ul style="list-style-type: none"> <li>○ knowledge of the foreign language: max 5 points</li> <li>○ research project presentation: max 25 points</li> <li>○ general knowledge of issues connected to the PhD course: max 20 points</li> </ul>	<b>Up to 50 points</b>
SCHEDULE OF THE ADMISSION EXAMS		
<b>ORAL EXAM</b>	<b>DATE</b>	5 December 2022
	<b>TIME</b>	04:00 PM (Italian Time)
	<b>PLACE</b>	Department of Engineering and Architecture Scientific Engineering Headquarters Parco Area delle Scienze, 181/A – Campus Universitario 43124 PARMA - ITALY
<b>OTHER INFORMATION</b>	For foreign candidates, the admission examinations may be held in English at the candidate's choice. <b>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</b>	