

**Strategic Innovation for Sustainable and Smart Ecosystems
(Cod. 134R)**

Department	Economics, Management and Statistics (DEMS)		
Coordinator	Prof. Paul Matthyssens		
Length of program	3 years		
Research topics	The PhD program offers scholarship with a strong interdisciplinary emphasis in four areas of expertise: "Process innovation"; "Product innovation"; "Social innovation"; and "Welfare innovation."		
Places available	University scholarships	n. 5	<p>n. 1 linked to the following research project: "Strategic innovation and youth entrepreneurship. An ethnographic perspective to analysis and comparison" PROG.1</p> <p>n. 1 linked to the following research project: "Management and Childhood Education: tools for social sustainability; PROG.2</p> <p>n. 1 linked to the following research project: "Computer Science Solutions for Sustainable and Smart Ecosystems"; PROG.3</p> <p>n. 1 linked to the following research project: "Innovative Sustainable Medicine: Advanced 3D Cell Cultures for Personalized GBM Therapy Development"; PROG.4</p> <p>n. 1 linked to the following research project: "Innovative solutions for the monitoring of ecosystems based on hyperspectral imaging and machine learning", PROG.5</p>
	Scholarships funded by the Department	n. 3	<p>n. 1 linked to the following research project: "Sustainable Artificial Intelligence and Machine Learning"; PROG.6</p> <p>n. 1 linked to the following research project: "Study of thermonuclear fusion plasmas by means of emitted radiation diagnostic techniques"; PROG.7</p> <p>n. 1 linked to the following research project: "Innovation and sustainability in urban organisational structures: a legal analysis of digital governance practices"; PROG.8</p>
	Scholarships funded by external bodies	n. 7	<p>n. 1 scholarship funded by Fondazione AVSI linked to the following research project: "The Pedagogy of Social Emotional Learning in Ugandan Primary Schools"; PROG.9</p> <p>n. 1 scholarship funded by AZA S.p.a linked to the following research project: "Cybele project: NMC/NCA layered cathode: direct resynthesis from spent lithium ion batteries recycling processes"; PROG.10</p> <p>n. 1 scholarship funded by Intesa San Paolo S.p.a. linked to the following research project: "Bridging Explainable AI and Large Language Models"; PROG.11</p> <p>n. 2 scholarships funded by ENI S.p.a linked to the following research project: "Development and characterization of diagnostic systems, advanced modelling tools and materials"</p>

			<p>for studies of thermonuclear fusion plasmas"; PROG.12</p> <p>n. 1 scholarship funded by Italfarmaco S.p.a. linked to the following research project: "Innovative therapeutic approaches to neuroinflammation: drug discovery and preclinical development of drug leads"; PROG.13</p> <p>n. 1 scholarship funded by Corimav linked to the following research project: "Rubber Nanocomposites: aging and stabilization "; PROG.14</p>
	<p>Scholarships cofounded by external bodies PNRR 630/2024</p> <p>CUP: H41J24000490002</p>	n. 5	<p>n. 1 scholarship funded by LINK UP S.r.l. linked to the following research project: "Design, Development and Evaluation of Advanced Multimodal Interfaces for the Advanced Management of Patient Journeys."; PROG.15</p> <p>n. 1 scholarship funded by GREMSE GmbH linked to the following research project: "Development and application of image processing procedures for biological signal extraction and evaluation of regional functions and connectivity in animal model of human disorders"; PROG.16</p> <p>n. 1 scholarship funded by VALUE INNOVATION ACCESS S.r.l. (VIA) linked to the following research project: "Defining the value of healthcare innovations in clinical practice: development and application of Value based healthcare approach in chronic diseases"; PROG.17</p> <p>n. 1 scholarship funded by Fondazione Bruno Kessler (FBK) linked to the following research project: "Development of silicon carbide fast neutron sensors for nuclear fusion monitoring applications"; PROG.18</p> <p>n. 1 scholarship funded by Sibylla Biotech SPA linked to the following research project: "Next Generation of Binding Free-Energy Calculation"; PROG.19</p>
	Executive PhD positions	n. 2	<p>n. 1 position reserved for an employee of Italfarmaco SPA linked to the following research project "Exploring the Functions of HDACI}: A Biochemical and Biological Study"</p> <p>n. 1 position reserved for an employee of Intesa San Paolo SPA linked to the following research project "Human rights as guardrails for the age of Artificial Intelligence"</p>
	Total number of places available	n. 22	
Selection procedures	Assessment of qualifications and publications + oral examination (videoconference)		
Assessment of qualifications	<ol style="list-style-type: none"> 1) Grade of bachelor degree: max 3 points 2) Grade of master degree (second cycle): max 7 points 2bis) Grade of old system degree or single-cycle second level degree: max 10 points 3) Publications in extenso (already published or accepted by the publishers) and conference papers, of the last two years: max 4 points 4) Participations in post-degree masters, training courses, advanced courses, specialization schools, any other second degrees: max 2 points 		

	<p>5) Certification of joint researches and analysis: max 2 points</p> <p>6) Certification of training periods and/or research periods abroad of at least two months: max 2 points</p> <p>The Committee will evaluate periods less than 2 months only if the early come back has been due to documented force majeure for COVID-19.</p> <p>For those students who have not obtained their degree yet, the score of points 2 or 2bis will be replaced with the assessment of the average mark of the examinations:</p> <ul style="list-style-type: none"> • Students of Master grade (second cycle): max 7 points • Students of old system degree or single-cycle second level degree: max 10 points <p>To access the oral examination a minimum score of 4 in the assessment of qualifications is requested, otherwise candidates will not be admitted to the oral examination.</p>
Information about examinations	<p>Oral examination language: English language proficiency will be assessed during the oral examination. The examination may be held in Italian or English language according to the candidate's choice.</p> <p>Oral examination: the oral examination comprises a discussion of the research project proposed by the candidate and its relevance to the field of study identified by the PhD.</p> <p>Research project: during the application process for the call, the candidate must upload, in addition to the titles, a research project, in Italian or English. The research project must be consistent in terms of subject matter and disciplinary areas with the lines of research present in the PhD and the grant proposals. It should be noted that the research project is an initial hypothesis of the candidate, it will not necessarily coincide with the PhD research that will have the fundamental contribution provided by the discussion with the faculty and the host institution</p> <p><u>Project characteristics:</u> length 8000-10000 characters (including spaces, excluding bibliography), consisting of the following parts:</p> <p>Title, abstract (about 400 characters), theoretical background and state of the art, objectives/hypotheses or research questions, methodology, expected results.</p> <p>Bibliography.</p> <p>Candidates should show methodological rigor, clarity of exposition, argumentation skills, critical appraisal and in-depth problem solving.</p>
Results of the qualifications assessment	<p>The results of the qualifications assessment, together with a breakdown of candidates in the examination days, that has notification value for all legal purpose, will be published on 3 September 2024 on the University website at the following link: https://www.unimib.it/didattica/offerta-formativa/dottorato-ricerca/accedere-al-dottorato/informazioni-concorsi</p>
Oral examinations	<p>Oral examinations will be held on 4, September 2024 from 9:00 am</p> <p>In the event that the number of candidates to be examined is high, the committee reserves the right to hold the oral examinations also on 5 e 6 September from 9:00 am</p>
Rankings	<p>Rankings will be published at the following link: https://www.unimib.it/didattica/offerta-formativa/dottorato-ricerca/accedere-al-dottorato/graduatorie-rankings-40th-cycle</p>
Contact for academic information	<p>Strategic Innovation for Sustainable and Smart Ecosystems (SIS2E) Università degli Studi di Milano-Bicocca (unimib.it)</p>
Further information	<p>All PhD students are requested to conduct research at a scientific institution abroad for at least 3 months.</p>