

PhD program in Mathematics and Applications

Research interests and Faculty

The **PhD Program in Mathematics and Applications** at Bocconi University is a newly established four-year program taught in English. It is a strategic initiative that builds on the Department of Decision Sciences' internationally recognized faculty, vibrant research environment, and Bocconi University's mission to foster interdisciplinary innovation. The Department has a strong tradition in both pure and applied mathematics, with several faculty members holding prestigious ERC grants.

Curriculum and timeline.

The first year provides rigorous core training at the heart of Mathematical Analysis—bringing students quickly to the research frontier and enabling them to launch a substantive research agenda—and is complemented by electives that may cover other areas of mathematics or, depending on their interests, economics, finance, statistics, or machine learning. The second year completes this preparation, offering a view toward applications and providing advanced, research-oriented courses, also taught by visiting professors. The program is structured accordingly: research begins in the first year and develops progressively thereafter. Years three and four are devoted fully to research and thesis writing, with opportunities for international research visits and exchanges.

Interdisciplinarity

In addition to a strong core in cutting-edge Mathematical Analysis, the program offers distinctive opportunities for interdisciplinary collaboration in economics, finance, decision theory, and computer science, in line with Bocconi's tradition in the social sciences.

Faculty and visiting scholars

The faculty includes internationally acknowledged researchers in Mathematical Analysis, Applied and Computational Mathematics, Decision Theory, and Mathematical Finance. The program also benefits from authoritative visiting professors who deliver short monographic courses on frontier topics.

Careers

The PhD in Mathematics and Applications is designed for highly motivated students aiming for first-rate research careers in academia, research institutes, and quantitative roles in industry and finance, as well as strategy consulting, operation research, optimization, and AI/ML labs.

Admission profile.

Highly qualified and motivated candidates with MSc degrees in Mathematics, Computer Science, Physics, Economics, Data Science, Engineering, or related areas are encouraged to apply.

Student support.

The PhD School's tutors and Career Service are available to support

	<p>candidates during the application process and students throughout their studies.</p> <p>The PhD program in Mathematics and Applications at Bocconi University is a newly established 4-year program taught in English. It is a strategic initiative that builds on the Department's internationally recognized faculty, vibrant research environment, and the university's mission to foster interdisciplinary innovation. The Department of Decision Sciences has a strong tradition of excellence in both pure and applied mathematics, with several faculty members holding prestigious ERC grants that enhance the program's global attractiveness.</p> <p>The program underscores the belief that even the most abstract mathematical discoveries drive innovation, shaping algorithms, applications, and entrepreneurial ventures. As a cornerstone of the academic ecosystem, it enriches undergraduate and master's education, fosters a research-driven culture, and acts as a benchmark of scientific rigor across STEM disciplines.</p> <p>The program structure includes a first year devoted to coursework in core mathematical areas, along with electives selected from other Bocconi PhD programs (e.g., in Economics, Finance, Statistics or Computer Science). The second year includes further coursework and marks the beginning of the individual research path. The third and fourth years are fully dedicated to doctoral research and writing thesis.</p> <p>In today's era of artificial intelligence, machine learning, and complex scientific challenges, the program equips researchers with deep expertise in areas such as optimization, probability, algebra, geometry, and differential equations—preparing them to lead transformative technological advances.</p> <p>Aligned with Bocconi's tradition in the social sciences, the program opens unique opportunities for interdisciplinary collaboration in economics, finance, game theory, and decision theory, strengthening the formal and methodological foundations of these fields.</p> <p>Finally, the PhD program is a cornerstone of long-term academic strategy: it attracts and nurtures top talent, enhances the department's international visibility, and consolidates its role as a hub for mathematical excellence and innovation.</p> <p>For more information about the program, please visit the website: https://www.unibocconi.it/en/programs/phd/phd-mathematics-and-applications</p>
Opening date	3 rd October 2025
Closing date	5 th February 2026
Available places WITH FELLOWSHIP funded by Tech Europe Foundation (TEF)	4 TEF fellowships
Fellowship	€ 27,000 for year 1 and € 23,000 for years 2, 3 and 4.

Starting date	1 st September 2026
Enrollment date	Refer to Art.9 “Enrollment deadlines” of the present Call for details
Duration	4-year, full-time program
Curricula	--
Selection Criteria (see art. 8)	<p>The assessment is based on a candidate’s:</p> <ul style="list-style-type: none"> • Curriculum Vitae (mandatory); • Academic Records (mandatory); • Statement of purpose (mandatory); • Up to three reference letters (not mandatory). <p>The assessment criteria are as follows:</p> <ul style="list-style-type: none"> • a maximum of 60 points for the applicant’s curriculum vitae and academic records; • a maximum of 40 points for statement of purpose and reference letters. <p>The Admission Board may decide to conduct a brief online interview to get clarification about the student’s qualifications. No additional points are given to the interview.</p> <p>A minimum total score of 60 points is required to be eligible for admission.</p>
Results	No later than 16 th March 2026
Contact	phdadmission@unibocconi.it http://www.unibocconi.eu/admissionphd
Technical support	phdhelpdesk@unibocconi.it