



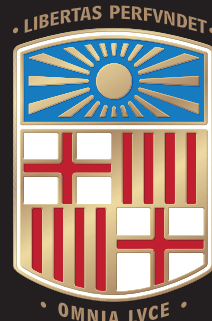
UNIVERSITAT DE
BARCELONA

Doctoral School

The Doctoral School (EDUB) has the responsibility of developing and organizing doctoral studies with the aim of supporting doctoral students and promoting excellence, visibility and internationalization.

The UB enjoys a decentralized structure, so that the administrative support and access to doctoral studies is managed at the faculties. Admission, research and training is managed by the doctoral programmes. Many of these programmes are interdisciplinary and the researchers are affiliated to different departments, faculties and research institutes. **Please contact the programme coordinator** for more specific information.

Closely related to the history of Barcelona and Catalonia, the UB combines the values of tradition with those of an innovative institution of excellence. The urban, open and cosmopolitan nature of the university reflects that of the city itself, where the **six campuses** and **sixteen libraries** are located.



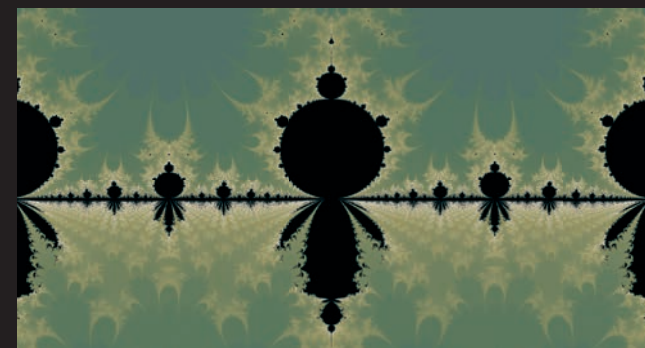
Gran Via de les Corts Catalanes, 582, 1r pis
08011 Barcelona
Tel. +34 934 020 957
escola.doctorat@ub.edu

www.ub.edu/escola_doctorat/ ■



UNIVERSITAT DE
BARCELONA

Doctoral School



Doctoral programme

Mathematics and Computer Science

DOCTORAL PROGRAMME IN Mathematics and Computer Science

The doctoral programme in Mathematics and Computer Science encompasses a body of activities through which students acquire advanced training and prepare a doctoral thesis in one of the associated research areas. It is organized by the UB's Faculty of Mathematics and Computer Science.

Why apply to the Doctoral Programme in Mathematics and Computer Science?

- The programme covers eight research areas whose researchers belong to consolidated groups recognized by the Government of Catalonia, as well as being supported by Spanish and European grants, providing considerable scope for national and international collaborations.
- The UB's Institute of Mathematics (IMUB), an institute set up in 2000 to promote research across all areas of Mathematics and Computer Science, supports the doctoral programme and organizes activities such as conferences, congresses, workshops, seminars and advanced courses.
- Researchers of the doctoral programme collaborate with other research groups, both national and international, as well as with several institutes, such as the UB's Institute of Complex Systems (UBICS), the Institute of Cosmos Sciences (ICCUB), the UAB's Centre for Computer Vision (CVC), and the CSIC Institute of Artificial Intelligence Research (IIIA).
- Facilities:
 - The Mathematics and Computer Science CRAI Library offers its bibliographic fund for research activities at the Faculty, including access to the best scientific journals.
 - Computer facilities include two clusters for scientific computation summing up to 36 nodes with 612 cores, up to 26 TB in two disk servers, and gigabit networks.

Who should apply?

Holders of master's degrees in subjects related to the research areas covered by the programme, such as the master's degrees in Advanced Mathematics and in Fundamental Principles of Data Science, offered by the Faculty of Mathematics and Computer Science, and the inter-university master's degrees in Artificial Intelligence and in Pure and Applied Logic.

Research lines

1. Commutative Algebra and Algebraic Geometry
2. Stochastic Analysis
3. Mathematical Analysis
4. Computer Science
5. Differential Geometry and Topology
6. Mathematical Logic
7. Dynamical Systems
8. Number Theory

Objectives

- To provide advanced scientific training to doctoral students with a view to conducting quality research in the fields of Mathematics and Computer Science across both academic and professional settings.
- To give students the greatest possible scope to acquire interdisciplinary expertise.

Training activities

- Specific training for a doctoral thesis, generally provided by the thesis supervisor and the hosting research group.
- Cross-disciplinary skill building related to research and professional life, provided by the Institute of Professional Development (IDP-ICE) of UB.
- Attendance and participation in courses, seminars and conferences.

Faculties

- Faculty of Mathematics and Computer Science
- Faculty of Philosophy

Key details

- Number of students per year: 20
- Areas: **Sciences**
- Length: **Full-time (3 years) or part-time (5 years)**
- Website:
http://www.ub.edu/escola_doctorat/en/offerformative/doctoral-programmes-offered

Coordinator

Alejandro Haro Provinciale
alex.haro@ub.edu
Facultat de Matemàtiques i Informàtica
Gran Via de les Corts Catalanes, 585

UB: the best option

The UB is the main public university in Catalonia, with the widest offer of doctoral programmes and the largest number of researchers of all Catalan universities. The University of Barcelona offers **48 doctoral programmes**, organized since 2012 by the Doctoral School to help you find the one that fits your preferences.

The University of Barcelona occupies the first position in Spain in the rankings of Shanghai, the Best Global Universities and the CWUR, thus being the best ranked university in Catalonia and Spain. The UB is the leading most innovative university in research and is the only Spanish university that is part of the League of European Research Universities (LERU), an organization that groups the most prestigious European universities in research.

