# UB PhD Scholarship program

# Why join one of our Graduate Programs?

The University of Bordeaux's Graduate Programs combine training and research around theme-based research specialties that will allow you to acquire international scientific expertise while working towards your PhD.

#### Can I apply?

Those scholarships are reserved for international PhD students:

- Candidates holding (or currently enrolled in) a Master's degree or another degree conferring Master's status from a foreign institution
- > Candidates currently in a Graduate Program, enrolled in second year of Master at the University of Bordeaux and holding a degree (e.g. Licence, Bachelor or Master 1) from a foreign institution

#### How to apply?

Step 1: Choose a project of your interest among the available ones (3 choices max.):

https://adum.fr/UBX/ptUBPS

Step 2: Prepare your application:

- > Diplomas and transcripts:
  - > Master's degree or equivalent
  - Current certificate of enrollment (when applicable)
- > CV
- Motivation letter for the chosen project(s) (one letter per project)
- > Recommendation letter
- > Passport
- Any document demonstrating proficiency in English/French according to the requirements of the project

Step 3: Submit your application here: https://aap.u-bordeaux.fr/

Step 4: If your application is successful, you will be asked for an audition between March 25 and April 27.

Final admission results will be published at the end of May

Up to 10 PhD positions open

Website

doctorat.u-bordeaux.fr

**Contact** 

international is at ion. doctor at @u-bordeaux. fr





# **Graduate Programs**

#### **AFRICA**

# Challenges and transitions in Africa, Public Health, Economics, Political Sciences

The AFRICA Graduate Program is a study and research initiative which brings together a multidisciplinary cohort of students and PhD students. It focuses on the study of contemporary Africa by examining the complex and multidimensional issues confronting African populations and decision–makers. The disciplinary contribution primarily lies in public health, economics and political sciences, but other topics of interest are explored, such as law, anthropology and demography.

#### Available PhD positions

 Implications of location of social housing projects in spatial justice in Addis Ababa, Ethiopia

Contact

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#### **Cancer Biology**

# Cellular and molecular biology to translational and clinical research in oncology

The Cancer Biology Graduate Program focuses on knowledge, innovation and cross-disciplinary research, geared towards top-notch scientific research with a particular interest in multidisciplinary approaches to the study of cancer. The program includes integrated training covering the fundamental cellular and molecular mechanisms of cancer biology, through translational, clinical and technological research, including new technologies and multidisciplinary approaches to oncology.

#### Available PhD positions

- Modeling the human bone marrow niche to explore treatment response and overcome resistance mechanisms in acute myeloid leukemias
- Role of extracellular protein Anterior Gradient 2 (eAGR2) in chemoresistance
- > Post-transcriptional regulation and asymmetric cell division in the C. elegans embryo
- > Blocking tumoral invasion in Diffuse Intrinsic Pontine Glioma using generative AI and Digital Cell Twin technology
- Exploring the Role of Furin in Colorectal Cancer with KRAS or BRAF Mutations: Implications for Targeted Therapies
- > Deciphering quiescence exit through the repositioning of therapeutic molecules
- Deciphering the structural mechanisms regulating RAF kinases and their dysregulation in cancer
- > How bacterial genotoxins fuel digestive cancer
- > New therapeutic antibody for osteosarcoma metastasis treatment
- > Consequences of deregulating DNA replication for cellular physiology

Contact

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#### **ARCHEO**

#### Archaeological research, data collection

The ARCHEO Graduate Program brings together the scientific community of archaeology. Its distinctive feature is its focus on fieldwork as a key element in the training of Master's and PhD students, drawing on the exceptional resources and heritage of archaeological sites in the Nouvelle-Aquitaine region.

#### Available PhD positions

- > The origin and development of expedient bone tools in Southwestern France. Insights from correlative microscopy and neotaphonomy to the functional interpretation of use-wear patterns
- Microevolution of the facial skeleton and occlusion in relation to the reduction of masticatory forces associated with the Industrial Revolution
- Bridging Archeology and Primatology to Rethink Our Cognitive and Cultural Evolution

Contact

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#### Cardiac EP

# Integrated, international and interdisciplinary training on various academic fields in cardiac electrophysiology and bio-engineering

The Cardiac Electrophysiology Graduate Program covers a wide range of topics concerning cardiovascular physiology and pathophysiology and in particular the mechanisms involved in heart arrhythmias, and the development of innovative treatments in this field.

#### Available PhD positions

> Stretch Effects on Ectopic Purkinje Firing

Contact

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#### **EURE**kA

#### Chemistry and physics-chemistry of materials

The EUREkA Graduate Program provides international and interdisciplinary training in chemistry and physical chemistry of materials, from the design, synthesis and developmental stages, to the chemical, physico-chemical and physical characterisations, and their use for specific functions and applications. The materials studied are very diverse (inorganic materials, polymers, colloidal materials, hybrids, composites etc.).

#### Available PhD positions

- > Rewiring Photosynthesis
- > High Entropy Alloys for hydrogen storage
- > Design of  $\pi\text{-conjugated}$  graft and block-copolymers for mixed conduction polymers blends as active material in OECTS
- Sustainable Magnetic Materials for Photocatalytic Degradation of Pollutants
- Conductive metal-organic frameworks towards sustainable photocatalytic reactions
- > New 2D photomagnetic materials based on pyrazine
- New aqueous two-phase systems (ATPS) with tunable interface permeability
- Synthesis, structures and properties of mixed anion compositions as sustainable positive electrode materials for alkali-ion batteries
- > Investigating Unconventional Superconductivity and the Influence of High Pressure in High Entropy Cuprate Oxides
- > Tridimensional functionalization of surfaces for biomolecule detection

#### Infinity<sup>2</sup>

#### Subatomic Physics, High-Energy Physics and Astrophysics

The Infinity<sup>2</sup> Graduate Program offers high-level modules that benefit from the specific skills of those involved in major experiments in Subatomic Physics, High-Energy Physics and Astrophysics. This program trains students in modern data processing methods (big data, data mining, AI, etc.), capable of meeting the major challenges posed by the use of the latest generation of instruments in terms of the volume and complexity of the information collected.

#### Available PhD positions

- > Developpement of analysis tools dedicated to large-scale structures in very-high-energy gamma-ray astronomy
- Analysis of the first data of the JUNO experiment for the measurement of the radiogenic and cosmogenic background
- > Chemical composition of cold cores: an observational and simulated statistical approach

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#### LEXFI

# Law applied to the fields of technological innovation and social innovation

The LEXFI Graduate Program offers high-quality training in the legal issues dealing with technological and social innovations. Students acquire knowledge in law and political science, as well as in science and technology, life sciences, and human and social sciences.

#### Available PhD positions

- Considering gender in occupational health: a comparative legal analysis
- > The jurisprudential phenomenon facing technical developments

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#### **Numerics**

# Digital Science: mathematics, computer science and science for engineers, combined with human and social sciences

The Numerics Graduate Program trains future experts in the analysis of complex digital systems, Big Data and other technologically innovative services. The generalized use of data and smart digital systems heralds a new digital age: from digital nomadism and intelligent cities to a better understanding of human needs and uses. These future systems, dedicated to the analysis, recognition and optimization of resources, pave the way to life-changing applications, but require a broad scientific knowledge and skills in digital sciences. To form the experts of the future, the program offers trainings in mathematics, computer science and science for engineers, combined with social sciences innovative services.

#### Available PhD positions

- Scalable and Data-Driven Algorithms for Optimization Problems in Dynamic Graph Streams
- Intelligent Approaches for Fog Selection and Service Placement in Fog Computing Environments for IoT
- > Model-based prognosis of multiple time/space scale systems. Application to space shuttle during atmospheric re-entry
- Real-time Systeme identification of linear parameter varying systems for applications of heat transfers in lungs during open-heat cardiac surgery

#### **SENSE**

#### Environmental issues and the management of ecological transitions

The SENSE Graduate Program provides training from Master's to PhD level. The aim of this multidisciplinary program is to train students and junior researchers in the issues surrounding the development, protection and management of eco- and agro-systems.

#### Available PhD positions

- Deciphering the effects of biotic and abiotic interactions on the vulnerability of pine trees
- > Genetic resources for a sustainable rosewood essential oil industry in South America: insights from genetic, genomic and chemical approaches
- Genetic, metabolomic diversity and integration in agro-ecological cropping systems of a diversification plant species: Stevia rebaudiana

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#### SiTH

#### Health innovations and technologies for medicine

The SiTH (Science and Technology for Health) Graduate Program provides an in-depth research-oriented study in the field of healthcare related innovations: bio-imaging, molecules and nanoscience for health, regenerative medicine and translational medicine. The program trains junior researchers in the study of patients, as well as biology and medicine, covering everything from the composition of tissues and cells to the study of molecules.

#### Available PhD positions

- ACVR1/ALK2 inhibitors, conception and development to treat children DMG
- > Biodegradable and switchable lipids to improve mRNA delivery from lipid nanoparticles
- > MCT, RGD and Nanoemulsions inhibitors: winning trio in the fight against glioblastoma?
- Investigation of the interactions of disordered translation initiation factors and their contribution to protein and protein-RNA condensates
- In vivo functional characterization of RNA condensates in C. elegans germ cells
- Development of therapeutic nanobodies targeting the Guanylyl cyclase C receptor
- > Aptamer structures for biosensor design
- Investigating the Stabilization and Biological Roles of KRAS 5' UTR RNA G-Quadruplexes Using chemical Stapling

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