PhD

Light Sciences & Technologies (Light S&T)

Program Outline

The international PhD program in Light Sciences and Technologies is part of the University of Bordeaux Graduate Research School.
Selected within the French "Investments forthe Future" program as an "Initiative of Excellence", the three year program focuses on knowledge and innovation in light sciences and technologies, providing a multidisciplinary environment for first-class PhD research.
Students are offered complementary training with a strong emphasis on research and entrepreneurship skills.
Academic research domains:

- Laser & photonics
- Extreme regimes of light
- Materials for photonics
- Quantum sciences & Quantum technologies
- Condensed matter
- Nanosciences
- Optoelectronics
- Photochemistry
- Molecular photonics
- Biophotonics & imaging

Admission Requirements

Candidates must fulfill the following: Hold a Master degree (or equivalent) in Physics , Chemistry or Biology.

Academic Cooperation

The PhD program in Light Sciences and Technologies is managed by the University of Bordeaux.
Strong partnerships for international mobility and / or PhD co-supervision with:

- Brazil: São Paulo State University (UNESP)
- Canada: Université Laval & Institut National de la Recherche Scientifique (INRS)
- Germany: Abbe School of Photonics, (FSU Jena)
- South Korea: Yonsei University
- USA: University of Central Florida (UCF)

Doctoral Schools

- Physics and engineering
- Chemical sciences
- Life and Health Sciences

Program duration

3 years

Language Requirements

Program taught entirely in English, a B2 level or equivalent is required.

Fees and scholarships

- PhD positions are offered on a yearly basis
- International mobility grants and co-supervised theses are available upon application based on the program's academic collaborations.
- Annual registration fees for all selected applicants are calculated according to the rules and regulations of the University of Bordeaux (approximately 400€).

Strengths

- Top-class research environment with a high-level of technical know-how.
- Integrated, complementary training program (for both the research and business track), provided by academic and industrial players.
- Cross-fertilizing environment, thanks to the strong involvement of 15 research laboratories as well as industrial R&D centers and transfer platforms.

› This environment prepares students for future academic and /or industrial careers in photonics.
› Opportunities to apply for international mobility scholarships.
› Dual PhD degree opportunities with our main international partners.
› Numerous events organized within the PhD cohort.

Program Structure

› The selected PhD students entering the LIGHT S&T Graduate Program can benefit from specialized teaching programs and mobility grants during their PhDs, and will attend events organized for doctoral students within the doctoral program. The PhD student benefits from an academic or industrial mentor. This mentor provides personalized a follow-up on the evolution of his/her thesis work and accompanies him/her in his/her professional project. Joint supervision thesis and international mobility are encouraged and supported through mobility grants. The recruited PhD students will benefit from a support to promote outstanding research results obtained during the thesis (publication fees in high impact journals or presentation in renewed international conferences).

And after?

After graduation, PhD students are fully prepared for a career in research. They may also work as entrepreneurs, R&D engineers or in top-level management positions within the industrial sector.

Research:
› Academic research or R&D engineering

Business sectors:
› Light sources
› Quantum technologies
› Laser processing and 3D manufacturing
› Sensors and multi-responsive detection systems
› Smart and reconfigurable integrated photonics systems based on innovative hybrid nanotechnologies
› Optical components and devices manufaturing
› Innovative optical materials
› Pharmaceutical companies (drug screening and testing)
› Bio-imaging

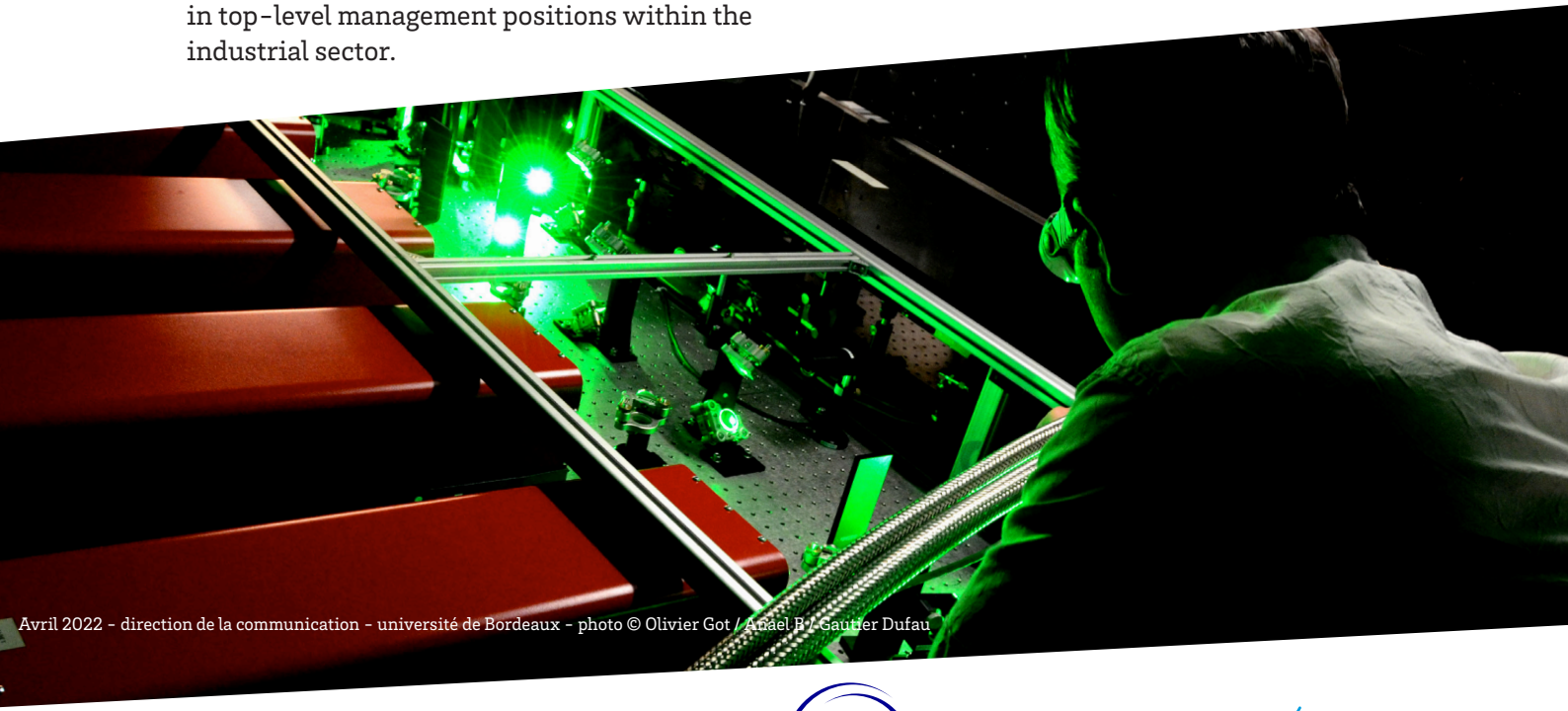
Other opportunities:
› Teaching, education and dissemination of scientific knowledge
› Linking public and private actors in research, development and marketing

How to apply?

Documents necessary for the selection procedure:
› Cover letter and CV (in English)
› Official transcripts of records, showing rankings
› Electronic Master thesis copy
› Thesis research project

Website

Contact
contact.light-st@u-bordeaux.fr



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Graduate Research School

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